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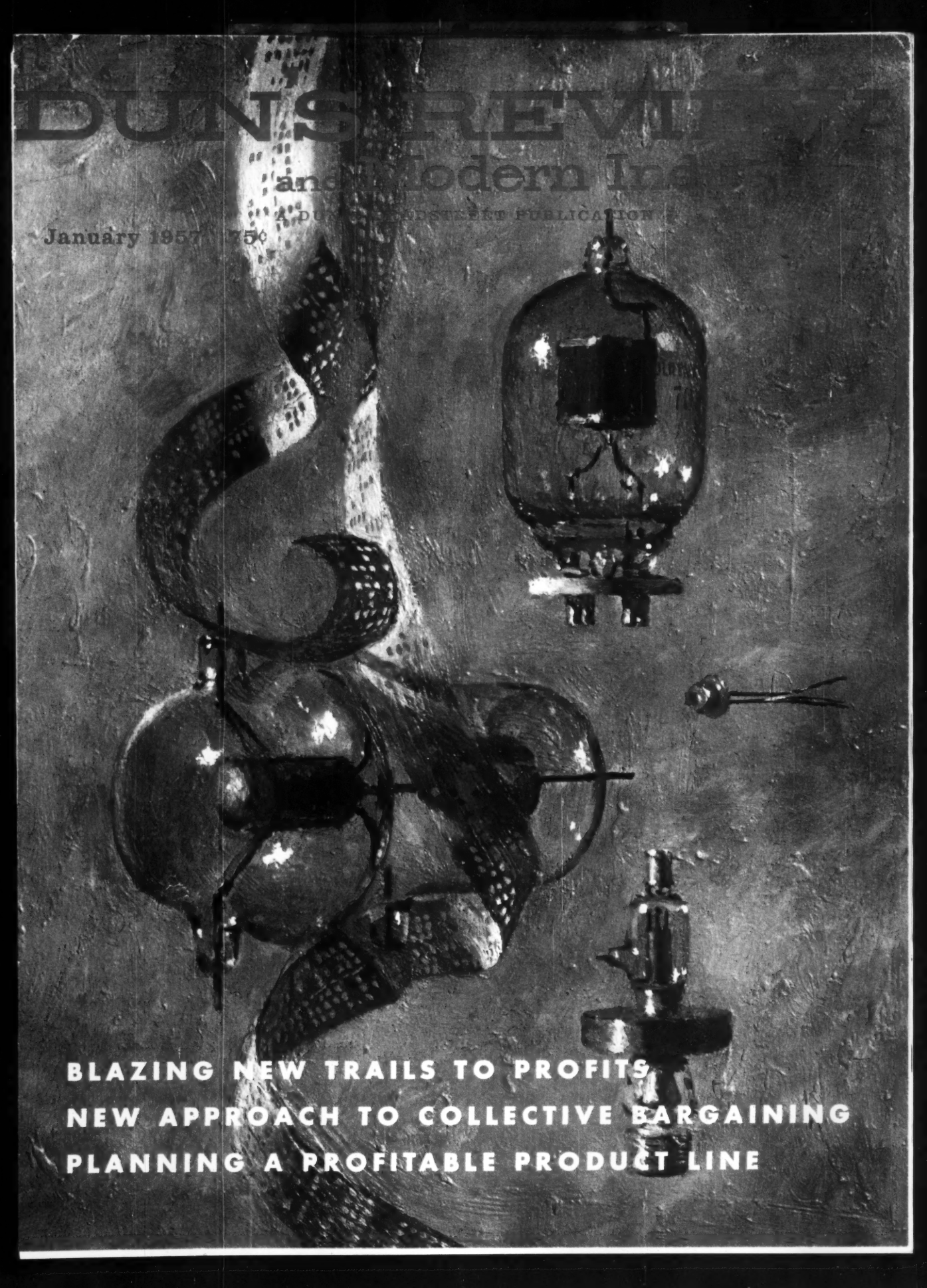

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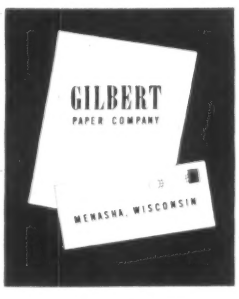

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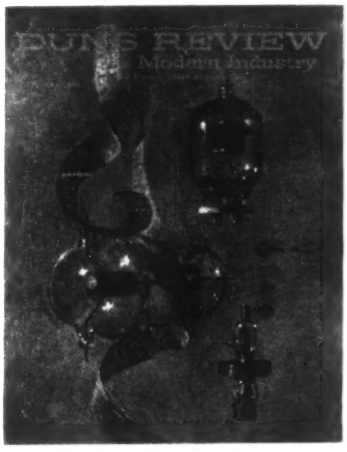

This month's cover was especially executed for DUN'S REVIEW AND MODERN INDUSTRY by Nicholas Solovioff, whose paintings hang in both museums and private collections, and who has taught at Harvard University.

VOLUME 69, NO. 3 JANUARY 1957

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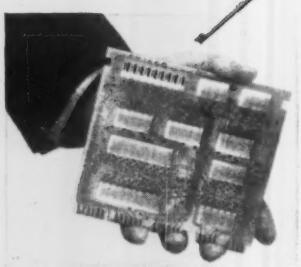

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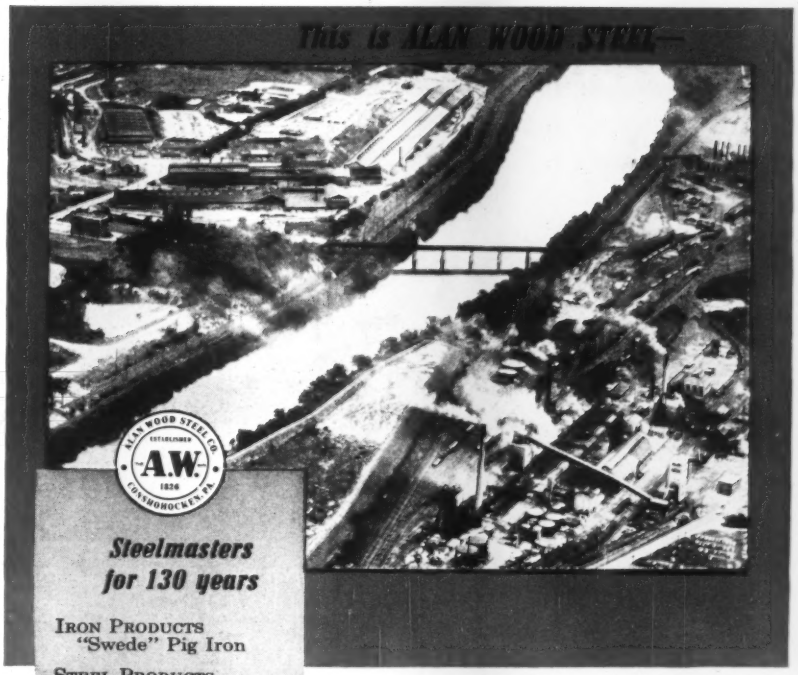
• Auto makers, encouraged by the rapid liquidation of the monthly payments on 1955 peak auto sales, expect to sell 7 million cars in 1957. While credit is important for auto sales in the next few years, roads and parking space are equally necessary. Lorraine Carson, our business conditions editor, reminds us that the Federal highway-building program is a $30 billion market for the next decade. Prosperity in America is on the move—it has to keep moving on the thousands of miles of new highways, free-ways, turnpikes, and black-top service roads.

• And speaking of credit, the Federal Reserve Board was set up in 1914 under the guidance of that financial genius of the Senate, Carter Glass of Virginia, to serve as a flywheel on the economic machinery of our 48 states. It is a device of tested service to our economic stability. It measures the tension of supply and demand in the use of money and its credit equivalents. The discount rate, as it moves up and down, reflects inflationary as well as deflationary pressures, and offsets them. Edwin George, our contributing editor (who has been telling us some of the problems of GAW) has a happy term for the discount brakes—he calls them "snubbers" because they absorb the shocks of economic bumps in the road. Several legislators and business men, disturbed at the restrictive influence of the higher interest rates instituted by the Federal Reserve Board, would like to see the judgment of this independent body controlled by, or at least make the Board responsible to, the Government. Such a limitation of powers would destroy or at least hamper the free action of a device that has demonstrated its merits for a generation. We have to play the business game according to the rules. We can't change them in our favor every time the going gets rough and tight money and high interest rates give rise to short-term difficulties. Let's keep the Federal Reserve free of official interference or influence, because it is a



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worthy example of how free enterprise maintains its own discipline. The judgment of the Federal Reserve members isn't infallible. Looking with hindsight over the past decade of cheap money and bond pegs, we may debate the wisdom of several decisions, but no mistake of this kind would justify the blunder of putting the Federal Reserve Board under Government supervision.

• Collective bargaining is a two-way street, but for many years management has looked to labor to take the first step and set the bargaining pace. James Menzies Black believes management should take the first step, meet the issues head on, and save time, nerves, money, and respect by a forthright approach to the problem. A little candor in the beginning saves a lot of face when decisions have to be made. Much of the preliminary shadow-boxing is a waste of time, and often means a waste of money for management and loss of total wages for labor. Mr. Black's "eight-point program" shows how to clear the way for discussions that lead to decisions without loss of time or temper.

• We all know that technological progress is accelerating, but nowhere is it more marked, or does it hold more promise, than in electronics. In this issue Anne Gardner shows how this progress affects every industry—and what you can learn from it. Even if you never see a transistor or a printed circuit outside your television set, you'll find this story indicative of the age of wonders which we accept so casually.

• With all of our progress in technology, there is no substitute for the salesman. We are told that there are fewer salesmen on the road than there were sixteen years ago. We are also told that there is no distribution problem so serious that it couldn't be solved by a few more salesmen on the firing line. Aphorisms are fine for the eloquent phrasemaker, but what are the measures of the salesman's previous time, his emotional factors, his technical equipment for the job? Tom Kenny, our marketing editor, is giving a lot of thought to this problem for future issues. He intends to show how the manufacturer's salesman can cut corners, save minutes, and build profitable volume.

—A. M. S.

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HEARD in WASHINGTON

EFFORTS TO HELP small business will be one of the important objectives of the new Congress. In their campaign activities most legislators promised to give the problems of small business personal attention.

By the end of the fiscal year the Small Business Administration will have made more than 7,000 loans aggregating some $300 million. Applications are being received at the rate of 700 a month. About 60 per cent are granted.

The Democratic idea is to give the Small Business Administration powers similar to those exercised by the former Reconstruction Finance Corporation. This would provide capital for expansion, the chief need of small business.

Republican members favor a more cautious approach, but see no objection to putting the Small Business Administration on a permanent basis. It is now a temporary agency, due to cease operations on June 30 of next year if the act is not renewed. Democrats are seeking quick action on that legislation. The general feeling is that the Small Business Administration has done an effective job.

Republicans are concerned with loss of revenue in granting tax relief to small business. Raising the exemption from the corporation tax helps only a small segment of small business. Opinion is divided on the advisability of accelerating depreciation. Some members point to Sweden, which allows companies to take depreciation about as they wish. Loss of revenue is the main argument against such a policy here.

Further recommendations from the Cabinet committee on small business were being awaited as this was written. Both parties favor a careful review of the Small Business Administration Act to remove uncertainties regarding authority and to liberalize the agency's loan-making powers.

Little agricultural legislation will be requested at this session. The clamor has died down with the improvement in prices and the outflow of soil bank money. Drought relief legislation will go through promptly. Relief for depressed farm and industrial areas is probable.

Among the first laws to reach the statute books will be the extension of authority to admit refugees. That law expired December 31.

The Department of Justice will ask authority to require information prior to the merging of corporations. A simplified form of filing suits under antitrust statutes will be requested. Authority to establish a civil rights section in the department probably will be granted, and authority to take civil rights cases to Federal courts.

Life insurance companies are not worrying about any steps Congress may take concerning mergers. There have been relatively few mergers among insurance companies. The trend seems to be to start new companies. The number of companies in the life insurance field is double the number in existence at the end of World War II.

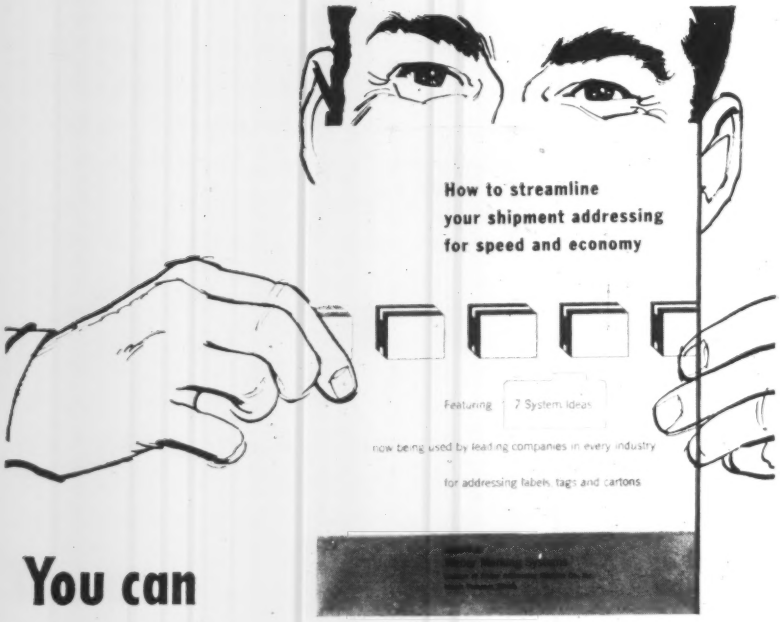
Other legislation: The gas bill will go through this time. Authority to sell foodstuffs to Iron Curtain countries will be coupled with proposals for the interchange of other nonmilitary items. An increase in foreign aid will be urged. Extension of suffrage to the District of Columbia will be added to the Alaska and Hawaii statehood legislation, which has no chance of passage.

Federal funds for school buildings will be brought to the floor at the earliest possible date, but chances of passage are slim if Representative Adam Powell of New York insists that no funds go for schools until integration is assured.

Proposals for creating an authority that would put standby controls into effect immediately in an emergency are meeting some opposition. The President, while seeing some advantages in such legislation, points out that the mere existence of the authority would create the impression that controls could be slapped on under the wrong circumstances, without consultation of Congress. He believes Congress can act fast enough to take care of any situation that may arise. But he does not think the matter is of great importance, one way or the other. Demand for such legislation is coming from Democratic quarters. If Congress passes it, the President says he can live with it.

Some selective overhauling of the revenue code has been done by a Ways and Means subcommittee, headed by Representative Wilbur D. Mills of Arkansas. The excise taxes have been combed through by another subcommittee, of which Representative Aime J. Forand of Rhode Island is chairman. Some loopholes in the tax structure will be closed, but the prospect for any over-all reduction in taxes is poor.

The Administration is fighting hard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to prevent a deficit and is turning a deaf ear to pleas for reductions or substantial changes in the present tax framework. The subcommittees have worked diligently between sessions. Testimony on the excises was taken from some 180 witnesses. The Mills subcommittee heard 45 tax experts.

Congress doubtless will go through the motions of favoring substantial tax reductions, but, even if such bills should squeeze through, they would face certain veto.

Officials are not so optimistic as their public statements would indicate. There is little doubt that the Middle East crisis and the attitude of Russia are dampening down the economy of Western Europe. The possibility that this could deepen into a depression is recognized.

Pressure on the price structure is causing great concern in Washington. After having stayed in a narrow groove for three years, the price index is moving up sharply. An increase of half a point in consumer prices adds a cent an hour to wage contracts tied to the cost of living. That automatic clause in the contract with the Steelworkers already had added three cents an hour to wages, when this was written, with another cent in immediate prospect.

Never before has the United States faced such tough problems in foreign policy. It is going to be difficult to prevent the spread of Communism in the Arab countries. Red China is getting stronger and more belligerent. Japan has had a hard time making a go of it. Southeast Asia is a problem in itself. The point has been reached where irresponsible and insulting talk from Russian leaders must be challenged. Decisive action must be taken against brutalities of the Hungarian type. A stiffening of the American attitude is expected.

European oil shortage will affect steel supply more than domestic oil supply. Steel output abroad will be sharply reduced because of the fuel situation. As a result of the Middle East crisis, also, the domestic shipbuilding program has been thrown in high gear. Fifty-eight ships are under

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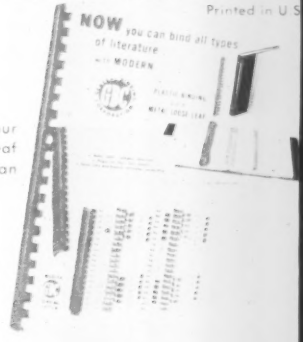

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construction in American yards or on order. A tanker program is being rushed. While existing priorities apply only to the defense program, ways probably will be found to supply the shipbuilders. The same will be true with regard to steel for pipelines and railroad tank cars. Other railroad requirements will face delay. Full impact of the steel shortage will not be felt until the second quarter, but it will slow down commercial building, automobile production, highway construction, and airplane output. These are the views of officials who are watching the situation closely.

The Government's study of the oil situation indicates that U. S. producers will be able to supply all the crude oil that can be transported from continental United States to Europe. Diversion of imports to Europe means more domestic crude will have to be used in processing heating oil. This will stimulate a rise in gasoline output, of which there already is a large surplus—12 per cent more than at this time last year. Price of gasoline may have to be reduced to increase use.

Sudden curtailment of world oil supply has emphasized the need for self-sufficiency in this country. It has cut the ground from under legislators who were agitating for a reduction in the depletion allowance in oil producer taxation. The feeling now is that exploration should not be discouraged. The Middle East Emergency Committee comprised of fifteen oil companies is not dealing with production. Its assignment is to make sure the most efficient use is made of shipping. Figures furnished the Interior Department show that Western Europe and North Africa normally used 3 million barrels of oil a day, of which 1.2 million barrels came through the Suez Canal. Lesser amounts came through the Mediterranean direct, now reduced by pipeline sabotage. Until canal navigation is restored, Europe will have to get along on 25 per cent less oil, at best.

Paul Wooton

WASHINGTON, D. C.

Why Some People Almost Always Make Money in the Stock Market

WHY DO SOME "foolhardy" people make money in the stock market, while some of the most cautious people "lose their shirts"? What is the *basic secret* of preserving and multiplying your family nest egg?

After 55 years as a stock market investor, writer, broker and advisor, G. M. Loeb is more convinced than ever of the answer: *most investors have mistaken ideas about true financial safety.*

According to Mr. Loeb, who is a Partner of the famed brokerage firm of E. F. Hutton & Company, it is actually *safer* to put a small portion of your capital in a well chosen speculative stock *and keep the rest of it idle* — than it is to put all of it in a "safe" blue-chip stock. And he tells why, based upon facts drawn from his wealth of successful experience.

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—The fact that a stock is widely held by investment trusts is usually *not* a good reason for buying.

—Any program which involves complete investment of all capital at all times is certain to fail unless the amount is extremely small.

—It's really *safer* to aim at doubling your money than to aim at investing it for a 4% to 6% return.

G. M. LOEB, Partner, E. F. Hutton & Co.

What makes Mr. Loeb's daring rules so impressive is that he is not an ivory-tower theorist who has merely tested his ideas "on paper." Instead, he is one teacher who for 35 years has practiced with cold cash what he preaches. And with big-profit results — for, as *Newsweek Magazine* says about his book, "written by a man who has outsmarted the market for years."

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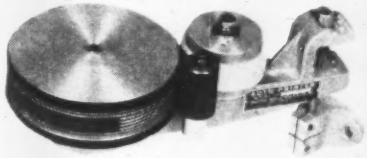

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STEELCASE

HIGHLIGHTS *and sidelights*

comment by

Ernesta R. Gardner

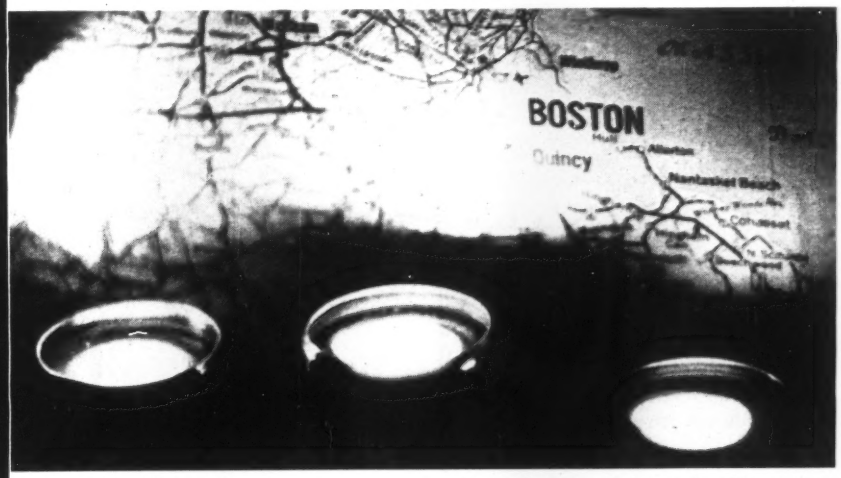
New light on the future

Pictures by atomic flashlight . . . space lighting by electroluminescent panels. These are only a sample of the innovations promised by research in luminescent materials.

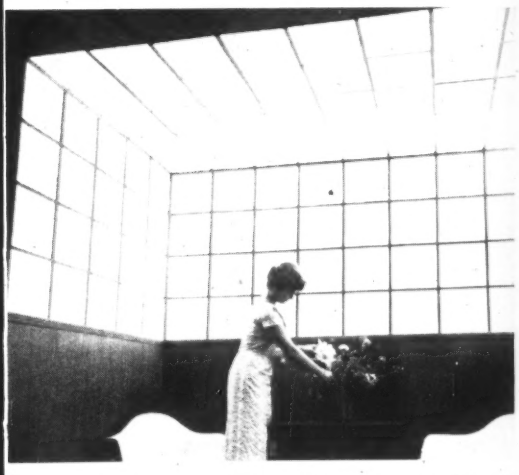
In the "atomic flashlight," a radioactive hydrogen isotope (tritium) activates a luminescent material to produce visible light. According to New England Nuclear Corp. which makes them. Such isotope-activated light sources, needing no batteries or electrical connections, could be mass-produced for as little as $5 or $10.

An electrical source connected to phosphor-coated glass lights the room below and the flashlight at its right. This flashlight uses a 25-volt battery and a transistorized circuit to deliver 550 volts at 8500 cycles.

The electroluminescent panels and flashlight are still experimental, but Westinghouse, pointing with pride to the progress made in just the past three years, believes that practical application is not too far off. Big advantage of this type of lighting, Westinghouse lamp engineers point



Atomic flashlights, shining on map, provide all the light needed to take this picture.



Electroluminescent panels and phosphor-coated flashlight disc are the light sources here.

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C. 120-acre tract available here.
D. 11,329-acre tract available here.
E. 125-acre tract available here.
F. 190-acre tract available here.
G. 1000-acre tract available here.
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Here in Missouri, new industrial plants are bustin' out all over. Especially along the state's 1,000 miles of Missouri and Mississippi river shoreline.

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Right now, today, many Missouri communities are prepared to help plan a plant to your own specifications, then lease it to you on favorable terms. If you wish to visit these communities, Missouri will be glad to take you there on a private, personally conducted tour.

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Richard Kinne, Industrial Director
Missouri Division of Resources and Development
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out, is that there is almost no theoretical limit to its efficiency.

This year, go see:

There'll be plenty to see at industrial expositions all over the country. Among those scheduled for the first half of the year:
Plant Maintenance and Engineer-

How to ruin a drill

TREAT IT ROUGH

LET IT CHATTER

FORCE IT IN

A good tool is easy to ruin—no matter how rugged it is. And the user generally blames the maker, rather than himself. That's why equipment builders have long sought, by every means available, to coax, caution, and instruct users to handle tools properly. Example of the cartoon approach is the group pictured here, part of a series prepared by Atlas Copco Eastern after a study of drill failure reports showed nine primary causes—the three pictured above, plus rough handling during transportation, outdoor storage, improper grinding, and similar follies.

"Doc! It's like fighting DERMATITIS with an armored glove."

Except WEST *protective gloves* are invisible:
— quickly applied
— comfortable to wear
— easily washed away.

For skin exposed to oils, dust, grease and grime:
— use PROTECTIVE CREAM #211.

For skin exposed to acids, alkalies and inorganic chemicals:
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— use PROTECTIVE CREAM #411.

WEST PROTECTIVE CREAMS protect against hundreds of troublesome industrial irritants. They're antiseptic. Inhibit harmful bacteria with Hexachlorophene. And they protect *for extended periods of time.*

How Convair stops Dermatitis before it starts

A simple safety precaution is preventing dermatitis at the huge $71,000,000 aircraft plant of Convair at Fort Worth, Texas. SAFETY ENGINEER S. A. GROSS (above) tells employees how to protect their hands against outbreaks of dermatitis with West Protective Cream #311. They cooperate — with their own well-being in mind. The result has been a reduction in the incidence of dermatitis to almost nil.

Would similar results interest you? Send the coupon.

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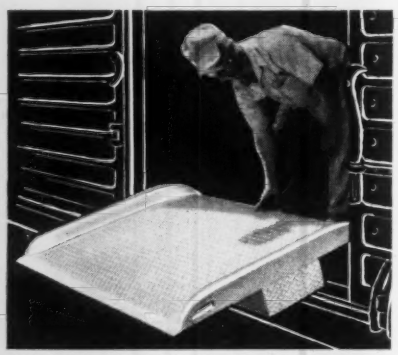
☐ Please send your 24 page booklet "The Control of Dermatitis in Industry."
☐ Please have a West representative telephone for an appointment.

Name.....

Position.....

Mail this coupon with your letterhead to Dept. 1



MAN PUTTING DOWN A SOUND INVESTMENT

This company has made a wise investment—one which will pay dividends year after year. The man above is dropping a Magliner magnesium dock board in place on the company's dock. This new Magliner will speed loading . . . get more out of power trucks and other loading equipment . . . keep costs down! Made of light, strong magnesium, it will protect men, loads and equipment against accidents and costly damage. Magliners are low in initial cost—and because they provide dependable, long-life service with less maintenance they give you greater economy ALL ways! Find out today how Magliner dock boards can cut costs in your operation. **Write for Bulletin DB-204.**

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Canadian Factory: Magline of Canada Ltd., Renfrew, Ontario

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ing, Cleveland Auditorium, January 28–31.

Heating & Air Conditioning, Chicago International Amphitheater, February 25–March 1.

Atomic Energy, Philadelphia Convention Hall, March 11–15.

Plastics—Pacific Coast, Los Angeles Shrine Exposition Hall, March 18–21. *Materials Handling*, Philadelphia Convention Hall, April 29–May 3.

Design Engineering, New York Coliseum, May 20–23.

Plant Maintenance and Engineering —Western, San Francisco Civic Auditorium, June 11–13.

Clapp & Poliak, Inc., 341 Madison Ave., New York 17, are the show managers for the Maintenance, Plastics, Materials Handling, and Design Engineering Expositions. The Atomic Exposition is sponsored by the American Institute of Chemical Engineers, and the Heating & Air Conditioning exposition by the American Society of Heating and Air-Conditioning Engineers.

. . . and if you're Europe-bound

You'll find London playing host to the Leather Goods, Nylon, and Hardware Trade fairs in February; Apparel and Household Textiles fairs in March; Industrial Textiles and Electronic Components shows in April; and the Instruments, Electronics, and Automation exhibits in May.

Birmingham, England, will be the site of the big British Industries Fair, May 6 to 17.

New executives for business

The Wall Street investment firm of A. M. Kidder & Co., Inc. has a new chairman and president, and it's looking forward to its next 92 years with confidence.

Nice, but not newsworthy? In this case, it is. Kidder's new chief executive officer is Mrs. Charles U. Bay, the first woman ever to head a New York Stock Exchange member firm, and the big news is that her accession created not a tremor in the market. It's proof—if proof were needed—that women in business are no longer curiosities.

As Mrs. Bay points out, more than 33,000 women are now majoring in business administration in our colleges. That's a talent pool industry can and must tap.

New trend in design?

The *Sheer Look* is the name Frigidaire has given to its new squared-up home appliance styling, which gives individual units an almost built-in appearance. Rounded corners, curved surfaces, exposed hinges, and unnecessarily fancy handles are giving way, Frigidaire says, to the clean, straight lines of today's architecture. Refrigerators look almost like clothes closets. Ranges are flat-surfaced inside and out. And the change is more than skin deep. The line is built on the modular principle, using a 4-inch base. Refrigerators, for instance, are offered in 24-, 28-, and 32-inch widths.

A. C. Gilbert, Jr., President of A. C. Gilbert Co., as photographed by Peter Benech

A. C. Gilbert, Jr., puts a new Diesel on the track with telegrams

"This scale model of a Diesel locomotive is the newest thing in our line of American Flyer toy trains," says Mr. Gilbert. "The body is high-impact polystyrene and getting the master mold exactly right was a ticklish proposition. The molder was over 1,500 miles away and since the blueprint required detailed explanation, we used telegrams. They're fast—and our instructions were in writing to avoid misunderstandings."

More than a million times a day, business finds it wise to wire. Telegrams quote prices, confirm orders, route shipments. Speed plus the written record make the telegram essential to American business. **DO YOU KNOW** about these other Western Union services? *Operator 25:* tells customers where to buy what an advertiser sells . . . *Hotel Reservation Service:* just tell us where and when and we'll make sure there's a room waiting.

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TELEGRAM

ON ANY OCCASION . . .

IT'S WISE TO WIRE!

Vibration's fine for breaking concrete... but it's out of place in a business office!

ARE YOU HAVING VIBRATION TROUBLE WITH HEAVY OFFICE MACHINES?

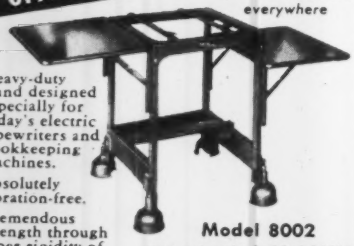
Usually it's the stand...not the machine!

HERE'S THE ABSOLUTE ANSWER!

The TIFFANY

8000 SERIES OFFICE MACHINE STANDS

At better dealers everywhere



- Heavy-duty stand designed especially for today's electric typewriters and bookkeeping machines.
- Absolutely vibration-free.
- Tremendous strength through super rigidity of construction.

Model 8002

With 1 drop leaf—Model 8000. Also available 35½" height.

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HOW ABOUT MAINTENANCE?
SNAP THE LATCH AND LIFT OFF THE COVERS - YOU DON'T EVEN TAKE THE MOTOR OUT TO GET AT THE BRUSHES, AND THE DISK BRAKE HAS A SIMPLE SCREW ADJUSTMENT
WRITE FOR OUR FREE TRUCK INDEX OF GO-GETTER ELECTRIC AND RED GIANT HAND LIFT TRUCKS

REVOLVATOR CO.

8702 TONNELE AVE., NORTH BERGEN, N. J.

What's new in Executive Suites

Standard-Vacuum Oil Company went slightly rustic, while Socony Mobil Oil stayed in the Big City. But both got themselves brand new homes that are models of what the well-appointed office should be. Both have excellent facilities for employees, designed for convenience and efficiency.

The Socony building has many unusual features, including its stainless steel exterior sheathing. But it is basically in the New York skyscraper tradition. The Stanvac building, on the other hand, is unusual in its shape and its Oriental touch. Inside the buildings, though, the situation is reversed. Interior architect J. Gordon Carr has given the Socony offices a completely modern decor, while the Stanvac offices are traditional—almost old fashioned—in their furnishings. It's an interesting contrast, and an intriguing one. —A. R. G.

Socony Mobil builds a new skyscraper

Directors' room is completely modern, yet spacious, comfortable, far from severe.

Both large and small executive offices are comfortable, well arranged, well lighted.

Standard-Vacuum moves to the suburbs

Stanvac building's Oriental cast reflects Far Eastern locale of company operations.

Directors' suite has traditional furnishings, aims at providing old-fashioned comfort.

Middle management offices are more modern, yet carry out the traditional approach.

CONFIDENTIAL

PLANT LOCATION FACTS

on your raw material requirements

We can provide you with accurate data on raw material costs at any specific New York State location. We maintain current and detailed data on local raw materials covering location, quality, quantity, availability and cost. If the materials are to be assembled from more distant points, we will determine their cost laid down at any given site or sites in New York State. In the case of components or semi-processed goods, we will identify suppliers and furnish details as to specifications, costs and delivery schedules.

Assembling materials won't be your only consideration in deciding on a new plant location. You will want complete facts on labor, markets, water, available sites or buildings, power, fuel and transportation. And you will want information on these as they apply to the successful operation of a specific plant.

A tailor-made report

Any or all of the factors important to your analysis will be covered in a confidential report to you—tailored to your needs. It will be prepared by a professional and experienced staff to cover either New York State locations of your choice, or, if you wish, sites which we will select on the basis of your needs.

Our booklet, "Industrial Location Services," explains what we can do for you. To get your free copy, write me at the New York State Department of Commerce, Room 573, 112 State Street, Albany 7, N.Y.

Edward T. Dickinson

EDWARD T. DICKINSON
COMMISSIONER OF COMMERCE

If you machine parts like these...

we can save you UP TO 30%

...with Ryerson leaded steels

If you machine carbon or alloy steels for production or maintenance applications—you should be able to make substantial savings by switching from a standard steel to a Ryerson *leaded* steel.

We can tell you about customers who produce up to 50% more parts per machine hour, now that they have changed over to a leaded steel recommended by Ryerson. Others report tool life lengthened as much as 300% . . . rejects reduced to all-time lows . . . machine down-time slashed . . . finishing processes eliminated.

The nation's largest stocks of leaded steels in a wide range of types and sizes are ready for quick shipment from Ryerson. (See listing below.) Each is the fastest machining steel of its type available anywhere. If you are not now using leaded steels, it will be worth your while to investigate the possibility of adapting one of them, or several, to your operations.

A Ryerson representative will be glad to work with you. Show you dozens of case histories—good hard facts that document just how well Ryerson leaded steels have worked out under actual shop operating conditions. Call your nearby Ryerson plant.

LEADED STEELS IN STOCK

CARBON STEEL BARS

Ledloy (Screw Steel) . . . Cold drawn rounds, squares, hexagons.

Rycase (Case Hardening, Low Carbon, Manganese) . . . Cold finished rounds.

ALLOY STEEL BARS

Rycut 20 (Low Carbon, Case Hardening) . . . Hot rolled and cold finished rounds.

Rycut 40 (Medium Carbon) . . . Hot rolled and cold finished rounds, annealed to heat treated and stress relieved.

Rycut 47 (Medium Carbon) . . . Hot rolled, annealed rounds.

New Rycut 50 (Medium Carbon) . . . Hot rolled and cold finished rounds in annealed condition, hot rolled rounds heat treated and stress relieved.

Leaded 8620 . . . Rounds hot rolled, cold finished.

Leaded 4140 . . . Rounds, cold finished, annealed or heat treated and stress relieved.

Leaded 8647 . . . Rounds, hot rolled, annealed.

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New E-Z Cut Plates (Hot rolled, low carbon, manganese.

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THE TREND OF BUSINESS

Output headed upward

A year from now the national output of goods and services will probably be at an annual rate surpassing $440 billion, about 3 per cent higher than the likely level for the first quarter of 1957. Steady increases throughout 1957 in spending by the Government, by business organizations, and by the man in the street will account for the expansion.

Gross national product for the year may average around $434 billion, some 5 per cent higher than for 1956. At least half the gain will be in the physical volume of output; the rest will be attributable to higher prices.

Keeping pace with the need for increased production, expenditures for new plant and equipment will be sustained at high levels, running at an annual rate of almost $38 billion in the first quarter of 1957, slightly higher than in the final three months of 1956 and some 16 per cent above a year ago.

Costs edge higher

Continued advances in wage rates and the prices of goods used in production will push costs higher, although new and more efficient equipment may help to restrain the bulge.

Wholesale commodity prices fluctuated within a narrow range in November and early December averaging 4 or 5 per cent higher than a year earlier. The prices for raw industrial commodities were about 5 per cent below the 1947–1949 average, in contrast with rises in the prices of manufactured goods ranging from about 8 per cent for chemicals to more than 50 per cent for metals and metal products. Hourly pay scales in manufacturing advanced steadily in 1956, at the year-end were about 5 per cent higher than in January.

New orders recover

Reviving from September's dip, manufacturers' new orders rose 2 per cent in October, with larger bookings for both durables and nondurables.

Although there was a dip in unfilled orders, the first such decline in about two years, backlogs were still about 15 per cent larger than a year ago. The decline occurred principally in the primary metal, transportation equipment, building materials, and instruments industries. Unfilled orders for machinery and fabricated metals did not differ conspicuously from their levels in the preceding month. Backlogs amounted to about four months' shipments at the current rate.

Seasonal drop for employment

Wintry weather in January may curtail employment in construction. Some seasonal cutbacks in retailing, food processing, furniture manufacturing, and tobacco processing are to be expected, too. But the loss in jobs will probably be partly offset by increased hiring in the metals, automobile, and aircraft industries.

For the first time in nearly three years, two of the 149 major employment centers were classified by the Bureau of Employment Security in November as areas of marked labor shortage. The critical need for workers in these areas, Hartford, and Stamford-Norwalk, Conn., was expected to continue for at least the next four months.

Rise in personal spending

With after-tax income rising from peak to new peak, consumer outlays for the first quarter of 1957 are expected to reach a seasonally adjusted annual rate of $275 billion, forging onward to a rate of about $284 billion in the fourth quarter. Consumer spending for the year may average about $280 billion, 5 or 6 per cent higher than in 1956.

Inventories stabilizing

No significant change in the rate of inventory accumulation is foreseen for 1957. While manufacturing and trade stocks in the latter part of 1956 were roughly $5 billion higher than at the beginning of the year, business sales generally kept pace.

Manufacturers were responsible for practically all the stock accumulation—retailers' inventories in the Fall and early Winter months were usually below the levels in the early part of the year.

Metals and machines

Operating at 100 per cent of capacity through the fourth quarter of 1956, the steel mills produced almost 2.5 million tons a week, lifting 1956 output to about 115 million tons, just 2 per cent shy of 1955's record, in spite of the crippling strike last Summer. Steel industry observers expect the 100 per cent operating rate to be maintained through the first quarter.

For the fifth year in succession, aluminum production in 1956 hit a new record level. Surpassing 3.3 billion pounds, primary aluminum production in 1956 was about 7 per cent higher than the previous peak in 1955. Some of those closest to the aluminum industry thought that shipments might amount to 4 billion, or more, pounds in 1957.

The production of farm equipment and machinery is expected to recover in 1957. Another 10 per cent growth is forecast for electronics output.

report on retail sales, page 22

WEEKLY BUSINESS SIGNPOSTS

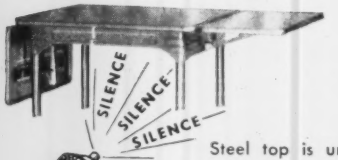
SELECTED BUSINESS INDICATORS	Latest Week*	Previous Week	Year Ago
Steel Ingot Production Ten Thousand Tons	237	253	231
Bituminous Coal Mined Hundred Thousand Tons	107	106	105
Automobile Production Thousand Cars and Trucks	179	182	169
Electric Power Output Ten Million KW Hours	122	120	116
Freight Carloadings Thousand Cars	717	737	709
Department Store Sales Index Number (1947–1949=100)	260	227	255
Wholesale Prices Index Number (1947–1949=100)	92	93	90
Bank Clearings Hundred Million Dollars	123	107	118
Money in Circulation Hundred Million Dollars	318	317	314
Business Failures Number of Failures	214	249	181

Steel data for the fourth week of December; coal, freight, and sales for the second week; all others for third week.

* *Sources:* Amer. Iron & Steel Inst.; Bureau of Mines; *Automotive News*; Edison Elec. Inst.; Assn. of Amer. Railroads; Bureau of Labor Statistics; DUN & BRADSTREET, INC.

It's Quiet!

SILENT STEEL



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Typewriter & Business Machine Stands

It's Quiet!

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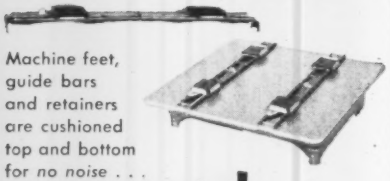

Machine feet, guide bars and retainers are cushioned top and bottom for *no noise* . . .

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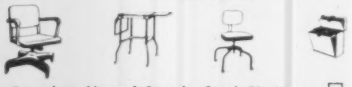
SILENT MOBILITY

Soft rubber casters and soft rubber feet (one adjustable). Will not mar floor. Firm fixed position . . . Smooth, silent portability . . .

Only LUXCO Stands

Offers so many "No Noise" Guarantees



A Complete Line of Stands, Steel Chairs and Stools and a DeLuxe Personal File.

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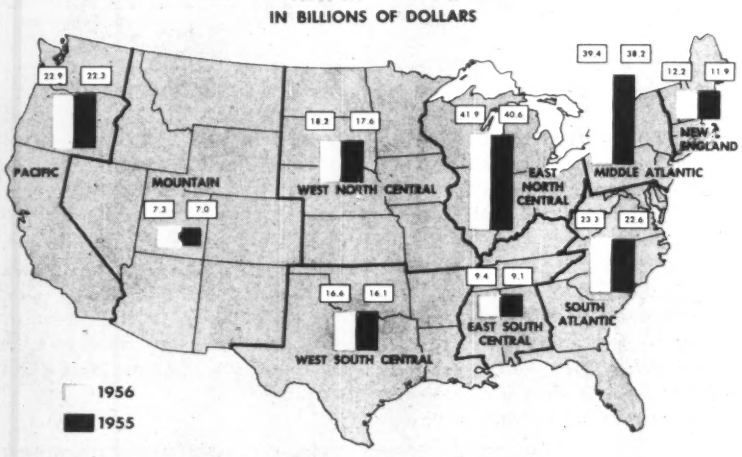


HIGHER SALES AT RETAIL

The sag in automobile sales through most of 1956 did not prevent year-to-year gains in retail sales in any of the nine regions of the United States. The smaller volume in automobiles was more than offset by gains from a year ago in retail sales of food, apparel, furniture, and household appliances.

A booming volume of Christmas trade helped to end the year auspiciously, although year-to-year comparisons in department store sales in the early part of December seemed to be faltering. Many of the large city department stores fared unusually well, but there seemed to be an increasing inclination among consumers to shop at discount houses, highway shopping centers, and suburban stores, forsaking the traffic-ridden downtown areas. Although some good bargains might still be on the counters for January clearance sales, year-end inventories at retail were generally below last year's level and in good balance with sales prospects for early 1957.

New Record in Sight

For 1957, it was the consensus that the dollar volume of retail sales might continue to rise, largely as the result of somewhat higher price levels. The unit volume of retail trade in 1956 was very little different from that in 1955, even though the population increased at a healthy rate and personal incomes were at peak levels. People apparently pre-

THE TOP TWENTY CITIES

Ranked by 1954 Retail Sales*
(In Million Dollars)

1. Chicago, Ill.	$5,007	11. San Francisco, Cal.	$1,172
2. Manhattan, N.Y.	4,035	12. St. Louis, Mo.	1,161
3. Los Angeles, Cal.	3,247	13. Houston, Texas	1,053
4. Detroit, Mich.	2,551	14. Milwaukee, Wis.	969
5. Philadelphia, Pa.	2,462	15. Dallas, Texas	956
6. Brooklyn, N.Y.	2,239	16. Pittsburgh, Pa.	907
7. Cleveland, Ohio	1,364	17. Minneapolis, Minn.	849
8. Boston, Mass.	1,321	18. Kansas City, Mo.	835
9. Baltimore, Md.	1,237	19. Seattle, Wash.	827
10. Washington, D.C.	1,212	20. Buffalo, N.Y.	796

*The data are from the 1954 Census of Retail Business; a list of the Top 75 Cities will be furnished on request.

THESE '57 CHEVIES TURNED THE TOUGH ALCAN HIGHWAY INTO A TURNPIKE!

They took the "teeth" out of North America's toughest truck run in an amazing display of stamina and dependability! The Chevrolet Alcan test called for great truck components . . . and here they are, the same modern features you'll get in *your* '57 Chevy!

Modern high-compression 6's—a time-proved Chevrolet truck Thriftmaster 6 made the tortuous Alcan Highway test look easy . . . registered a high 18.17 miles per gallon!

Short-stroke V8 power—with the shortest stroke of any truck V8's, new Chevy engines stand first in their field for efficient load-pulling! Their great performance in Alaska proved it.

Safe, sure brakes now Alcan proved—in light- and medium-duty models, Hydrovac power brakes* supplied up to 85% of the braking effort!

Unit-design cab and body construction—Chevrolet truck cabs and bodies remained tight and solid on Alcan bumps, showed that they're built to *last!*

Rugged Synchro-Mesh manual transmissions—they displayed never-say-die durability . . . came through with smooth, flexible, trouble-free performance!

*Easy-going Hydra-Matic transmission**—it reduced driver's work immeasurably and it saved wear on drive-line parts, too!

Sturdy frames and long-leaf springs—these brawny chassis components proved they can take it when the going is roughest . . . took the Alcan's worst with strength to spare!

These Alcan-proved Task-Force 57 features and others like them (such as extra-heavy rear axles, easy-rolling Ball-Gear steering, and new, improved tubeless tires) are ready to tame your tough truck runs too! Boost your hauling profits by seeing your Chevrolet dealer soon! . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

**Optional at extra cost.*

1957 CHEVROLET TASK-FORCE TRUCKS

PROVED ON THE ALCAN HIGHWAY . . . CHAMPS OF EVERY WEIGHT CLASS! CHEVROLET

To be sure of adequate cash whenever you need it in 1957

Consult COMMERCIAL CREDIT

Last Year hundreds of new users turned to COMMERCIAL CREDIT's Commercial Financing Plan as the ideal way to supplement their cash working capital. If your plans for the New Year might be adversely affected by a tight money market, investigate this method.

Experience has proven that the Commercial Financing Plan is usually able to provide MORE CASH than is available from other sources. Also, this extra cash is available CONTINUOUSLY (if needed) without negotiation for renewal.

This method is flexible enough to fit most any situation—whether the need is for weeks or years, whether the amount involved is $25,000 or Millions. Cash is usually available within 3 to 5 days after first contact. There is no interference with ownership or management. There are no preliminary expenses and no long-term commitment. The one reasonable charge is a tax deductible expense.

Knowledge of COMMERCIAL CREDIT's Commercial Financing Plan may make it possible for you to take prompt advantage of 1957 opportunities that might otherwise be missed. For additional facts, write and say, "Send me more information about the plan described in Dun's Review & Modern Industry."

Address the nearest COMMERCIAL CREDIT CORPORATION office listed here: BALTIMORE 1; 200 W. Baltimore St., CHICAGO 6; 222 W. Adams St., LOS ANGELES 14; 722 S. Spring St., NEW YORK 17; 100 E. 42nd St., SAN FRANCISCO 6; 112 Pine St.

COMMERCIAL CREDIT COMPANY'S subsidiaries, during the past year, advanced over one billion dollars to manufacturers and wholesalers to supplement their cash working capital. The total volume of its finance subsidiaries amounted to over three and one-half billion dollars.

Capital and Surplus over $200,000,000

ferred to spend more for services, save more, and pay off their debts.

Sustained high employment and advancing incomes in 1957 are expected to result in personal consumption expenditures in the neighborhood of $280 billion. While spending for services will probably rise again, retailers should be able to ring up sales of $197-$199 billion, a new record, 3 or 4 per cent higher than in 1956. High savings rates may still be maintained. Consumers salted away roughly $20 billion in 1956, about 20 per cent more than in 1955.

More Spunk in Durables

Notwithstanding the decline in prospects for home building in 1957, sales of furniture and household appliances are expected to increase. (A preview of 1957 construction volume is on page 29.) Fairly substantial gains, clustering around 10-20 per cent, are in sight for washers, dryers and small electrical appliances. Retailers of furniture and carpets are frequently expected to sell from 5 to 10 per cent more than in 1956. Volume in refrigerators, which was slow in 1956, may cease to decline.

Even the most optimistic of the automobile industry observers doubt that 1957 sales of new cars will reach 1955's record of 7.2 million units. But the likelihood of a noticeable improvement over 1956's 6 million cars is enhanced by the enthusiastic way people responded to the introduction of the 1957 models in the latter part of last year.

Market researchers at the Ford Motor Company estimated that the automobile industry as a whole may sell 6,750,000 cars in 1957. A study by Lehman Brothers, called "The Future at Ford" asserted that passenger car sales for the automobile industry at large may reach 8,500,000 by 1965 and that "peak years as high as 9,500,000 may occur in the interim."

Gasoline stations can expect to enjoy a brisk volume of sales in 1957, with probable gains of 4 or 5 per cent in consumer purchases of gasoline and lubricating oils.

Automobile dealers' profit margins improved markedly in the latter part of 1956, although sales of new cars were still somewhat lower than in the comparable period of 1955. Contrasting markedly with the situation earlier in the year, the chief problem with inventories was in get-

ting faster deliveries from the factories to keep pace with consumer buying.

Credit Sales Rise

Although the figures will not be available for another month, there is little doubt that the volume of consumer credit outstanding at the end of 1956 hit a new peak, in the neighborhood of $41 billion.

Except for a slight dip in February, consumers' short-term debts increased steadily in the first ten months of the year, reaching $40.2 billion in October.

Installment sales of automobiles did not falter throughout the year, even though new car sales were somewhat sluggish. At $14.5 billion in October, automobile installment debt outstanding was 9 per cent higher than a year ago.

Repayments of installment debt were sustained at a high level in 1956, amounting to $3.3 billion in October, compared with new extensions of $3.4 billion. The extensions of new automobile installment credit were slightly smaller than repayments in October.

Retail Prices Up

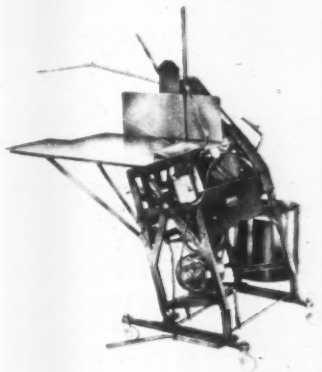
Consumers had to pay more for food, apparel, and some other commodities in 1956 than they had ever paid before. At 117.7 (1947-1949=100) in October 1956, the Bureau of Labor Statistics' Consumers' Price Index was at an all-time high, more than 2 per cent higher than a year ago. Food prices appeared to be leveling off in October, but the steady climb in apparel prices continued. Housefurnishings cost more than ever before and expenses in connection with the running of a home were at peak levels.

The amount of money consumers could spend at retail was sliced by higher prices for various necessary services. Medical care in October cost 4 per cent more than a year ago, necessities for personal care were up 3 per cent, transportation cost 5 per cent more than in the comparable period in 1955. It seems likely that the cost of living will continue to edge upward in 1957.

This is a Business Conditions Staff Report, prepared by Lorraine Carson, Business Conditions Editor.

HOW MACHINE TYING SERVES BUSINESS and INDUSTRY

You can increase tying speed 80% or more with a Bunn Package Tying Machine



80% production increase with one machine! Seems incredible, doesn't it? But it's true when you do your twine tying with a Bunn Package Tying Machine. Here's why:

Bunn Tying Machines are fast . . . *at least five times faster* than old fashioned hand tying. If your present hand tying operation requires 8 hours a day to keep up with high speed equipment and fast production lines, that same volume can be turned out on one Bunn Machine in 1½ hours . . . or less. That gives you at least 6½ hours additional productive time every day. You actually gain 80% or more in man hours . . . to increase tying output or for use in other departments . . . without increasing your payroll one cent.

Thousands of companies of every size, in all kinds of businesses and industry, are increasing production and cutting costs with Bunn Tying Machines. Consider these other time-saving, money-saving features:

Automatic adjustment: Any size or shape is tied in the same fast time . . . no time lost for manual changeovers.

Controlled tension: The strong twine is never too loose or too tight . . . can't cut into product . . . can't slip off . . . reduces package breakage and product damage.

No waste: Automatically uses just the right amount of twine.

Slip-proof knot: Can't come undone even with rough handling. Approved by postmasters for mail tying of all kinds.

Simple operation: Inexperienced operators become experts in minutes. Operation is fatigue-less and completely safe. Easily moved to any work area.

Mail the coupon today. Learn for yourself why . . . *almost anything which can be tied by hand can be tied faster, better and more economically with a Bunn Package Tying Machine.*

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6-24

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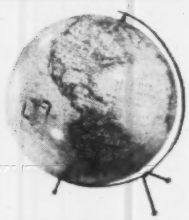
1. Hammond World Globe (inflatable)



2. Crash-Proof Automobile Sun Visor

3. Heat-Sealed "Thermo-Bag"

Experienced fabricators of vinyl know that trouble-free operation and superior production demand the best in DIES...DIES engineered and made to Peterson's exacting quality standards.

If you now plan new production let us show you how we can work with your engineers...or take over full responsibility for design and development of the electronic heat sealing DIES you need.

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BUSINESS FAILURES

DECLINING 14 per cent in November to 999, failures were still 6 per cent above a year ago. In fact, the toll was higher than in any other November since 1940, when there were 1,024 failures. While month-to-month trends this year have been irregular, November marked the eleventh consecutive month that failures exceeded the previous year's level.

The failure rate for each 10,000 enterprises listed in the DUN & BRADSTREET *Reference Book*, as reflected in DUN'S FAILURE INDEX, dipped to 48.5, the lowest rate in seven months. However, casualties occurred at a slightly higher rate than in November last year when 46.3 for each 10,000 were recorded. The current rate continued well below the prewar 59.5 in 1940.

Liabilities fell 20 per cent in November to $39,886,000, the second lowest volume so far this year, 7 per cent below a year ago. Fewer concerns failed in all size groups than in October, but the decline from 1955 was concentrated in casualties involving liabilities of $100,000 or more. These were 10 per cent below last year whereas very small failures of less than $5,000 held even and those of medium size increased.

In all functions except commercial service, failures were lower in November. The toll edged up slightly in the business and repair services. Construction casualties, although dipping below the record high of October, remained above any other month of 1956. Textile and apparel manufacturers and apparel retailers had the lowest tolls so far this year. Fewer lumber and building materials dealers failed than in any month since 1953. On the other hand, casualties in the retail automotive group edged up to a post-war high.

Manufacturing was the only function in which casualties fell below their 1955 level; the machinery and textiles and apparel industries contributed largely to this decline. The sharpest increase from last year, 29 per cent, occurred in construction. Almost twice as many general builders failed as a year ago, while subcontracting showed no change. The retailing toll increased a slight 4 per cent, mostly in the food and automotive trades and in eating and drinking places.

FAILURES BY DIVISIONS OF INDUSTRY

(Current liabilities in millions of dollars)	Number 11 months		Liabilities 11 Months	
MINING, MANUFACTURING	2113	2011	169.4	145.4
Mining—Coal, Oil, Misc.	39	49	8.1	4.8
Food and Kindred Products	177	150	9.6	13.7
Textile Products, Apparel	510	466	32.3	22.4
Lumber, Lumber Products	361	296	21.6	12.4
Paper, Printing, Publishing	113	107	7.3	6.7
Chemicals, Allied Products	57	43	12.3	3.2
Leather, Leather Products	75	77	4.5	4.3
Stone, Clay, Glass Products	32	43	4.7	1.7
Iron, Steel and Products	126	112	11.5	13.4
Machinery	249	264	29.9	34.9
Transportation Equipment	53	44	4.5	4.4
Miscellaneous	321	360	23.2	23.5
WHOLESALE TRADE	1135	1060	69.1	46.8
Food and Farm Products	277	253	12.1	11.9
Apparel	47	59	2.2	2.1
Dry Goods	45	50	1.5	1.8
Lumber, Bldg. Mats., Hdwre.	141	125	17.6	6.6
Chemicals and Drugs	43	35	1.4	1.1
Motor Vehicles, Equipment	62	61	3.5	1.7
Miscellaneous	520	477	30.7	21.4
RETAIL TRADE	5869	4935	145.1	110.8
Food and Liquor	1019	967	17.4	17.5
General Merchandise	257	180	8.8	4.9
Apparel and Accessories	1091	789	27.3	16.4
Furniture, Furnishings	732	676	24.7	19.3
Lumber, Bldg. Mats., Hdwre.	351	300	10.3	9.5
Automotive Group	669	500	20.9	11.6
Eating, Drinking Places	1046	880	21.8	18.6
Drug Stores	153	122	3.2	2.5
Miscellaneous	551	521	10.8	10.5
CONSTRUCTION	1651	1268	92.7	75.8
General Bldg. Contractors	632	400	49.7	36.1
Building Subcontractors	931	800	38.1	32.1
Other Contractors	88	68	4.9	7.7
COMMERCIAL SERVICE	936	787	36.1	28.8
TOTAL UNITED STATES	11704	10061	512.4	407.7

Liabilities are rounded to the nearest million; they do not necessarily add to totals.

THE FAILURE RECORD

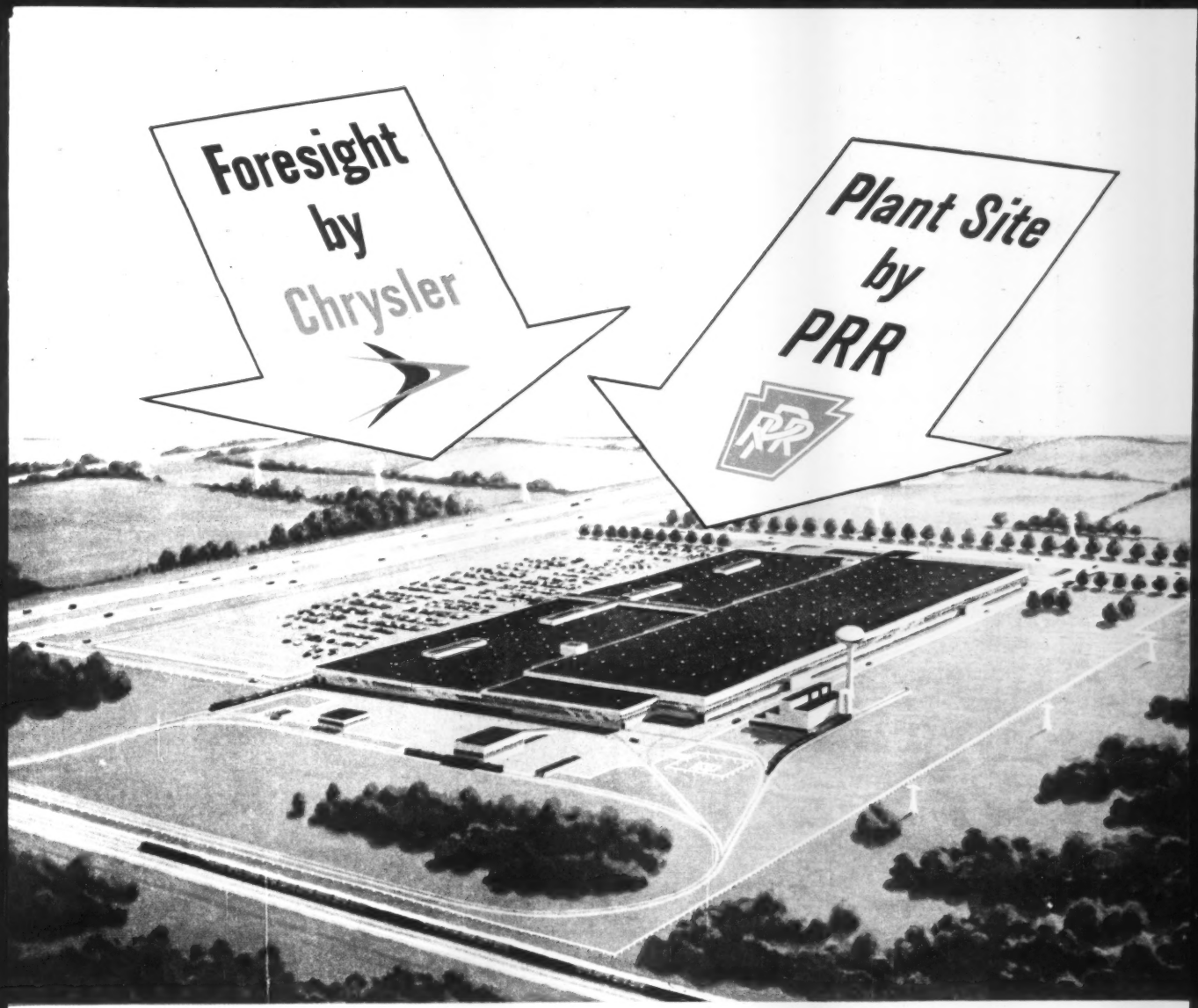
	Nov. 1956	Oct. 1956	Nov. 1955	P.C. Chg.†
DUN'S FAILURE INDEX*				
Unadjusted	49.5	50.6	46.8	+ 6
Adjusted, seasonally	48.5	53.3	46.3	+ 5
NUMBER OF FAILURES	999	1158	945	+ 6
NUMBER BY SIZE OF DEBT				
Under $5,000	152	188	152	0
$5,000–$25,000	491	560	464	+ 6
$25,000–$100,000	282	303	247	+14
$100,000 and over	74	107	82	−10
NUMBER BY INDUSTRY GROUPS				
Manufacturing	166	198	196	−15
Wholesale Trade	94	112	84	+12
Retail Trade	482	584	462	+ 4
Construction	171	182	133	+29
Commercial Service	86	82	70	+23
	(LIABILITIES in thousands)			
CURRENT	$39,886	$50,004	$42,783	− 7
TOTAL	40,285	50,343	43,073	− 6

*Apparent annual failures per 10,000 listed enterprises, formerly called DUN'S INSOLVENCY INDEX.

†Per cent change, November 1956 from November 1955.

BUSINESS FAILURES *include those businesses that ceased operations following assignment or bankruptcy; ceased with loss to creditors after such actions as execution, foreclosure, or attachment; voluntarily withdrew leaving unpaid obligations; were involved in court actions such as receivership, reorganization, or arrangement; or voluntarily compromised with creditors out of court.*

CURRENT LIABILITIES, *as used in The Failure Record, have a special meaning; they include all accounts and notes payable and all obligations, whether in secured form or not, known to be held by banks, officers, affiliated companies, supplying companies, or the Government. They do not include long-term, publicly held obligations. Offsetting assets are not taken into account.*



In locating Chrysler Corporation's new press plant at Twinsburg, Ohio, PRR extended virtually the full range of its site-location services to this great industry leader.

Spur facilities and a classification yard designed by PRR specialists will help expedite the flow of vital steel stock to the plant from strategically close sources at Cleveland, Pittsburgh and Buffalo.

PRR's industrial development services have helped Chrysler open the door to new opportunities in Ohio . . . can help locate your business in the heart of abundant resources, assist you in achieving local community cooperation, and place you within strategic reach of your important suppliers or points of distribution.

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Take advantage of this free offer. Then you, too, will enjoy all the advantages of having your own Hertz Charge Card!

Rent the kind of car you like to drive. Then "charge it!" Save time on business trips—have more fun on vacations. Show your Hertz Charge Card and driver's license at any of more than 1,000 Hertz offices—you can rent a sparkling, new Powerglide Chevrolet Bel Air or other fine car.

Act now! Get your Hertz Charge Card. Take a minute and fill in your application right away! Or, if you would like company-authorized charge cards for your employees, in which case rental charges incurred are billed to the company instead of to the individual, use the company form on the reverse side of the application at the right. Mail applications to: Hertz Rent A Car, 218 South Wabash Ave., Chicago 4, Ill.

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(PERSONAL)

APPLICATION

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Name First Middle Initial Last Phone Own Home ☐ Rent Home ☐

Res. Address City State or Province Years Residing At This Address

Employer or Firm Name Position

Business Address City State or Province

Years With Present Employer Annual Income Under $5000 ☐ Over $5000 ☐ Over $6500 ☐ Over $7500 ☐

*Height *Eyes Married ☐ Single ☐

References: Name Street Address City State or Province Type of Account

Bank:

Trade:

Trade:

Present Courtesy Card No.

*NOTE: This information appears on the Personal Charge Card to prevent unauthorized persons using it should it be lost or stolen.

APPLICANT'S SIGNATURE Date

I understand that if this application is approved, all charges made through use of Hertz Personal Charge Card are payable on or before the end of the month in which charges are incurred, and to the office issuing the invoice. Card and statements will be mailed to business address, unless otherwise specified.

Fill in this application for your personal Hertz International Charge Card

(For Company-Authorized Hertz International Charge Cards, use the application on the reverse side)

Fill out the application attached—tear off and mail at once to HERTZ RENT A CAR, 218 South Wabash Ave., Chicago 4, Ill. Your card will be sent to you promptly—as quickly as approved.

NO DEPOSIT...NO DELAY... with a HERTZ International Charge Card

The Hertz International Charge Card entitles you to no-deposit and charge privileges on business or pleasure trips. It is a permanent card and is honored in every Hertz office—more than 1,000 in over 750 cities throughout the world. Rental charges are billed to the holder and payment is made to the office issuing the invoice, in the currency of that office's nation.

Show your Hertz International Charge Card and driver's license and rent the kind of cars you like to drive—new, sparkling Powerglide Chevrolet Bel Airs or other fine cars. Drive it as your own a day, week or longer. The national average rate is only $8.00 a day plus 8 cents a mile (lower by the week). That includes all gasoline, oil and proper insurance.

Save time on business trips—have more fun on vacations. To be sure of a car at your destination—anywhere—make a reservation in advance by calling your local Hertz office. We're listed under "Hertz" in *alphabetical* phone books everywhere!

If you would like company-authorized charge cards for your traveling personnel, fill in the application on the reverse side.

(COMPANY APPLICATION)

HERTZ INTERNATIONAL CHARGE CARD

PLEASE PRINT

Gentlemen:

Please furnish us with Hertz International Charge Cards in company name for use by the individuals whose names are listed on attached letterhead. The issuance of Hertz Company Charge Cards will permit those individuals to charge automobile and truck rental service to our account.

We agree to be responsible for payment of all bills pertaining to the use of your service, contracted by the persons whose names and descriptions are listed, until such time that the Hertz Company Charge Card is returned for cancellation and written notice to discontinue service to anyone or all such persons shall be filed at your office. Invoices for services rendered are to be mailed to the address at the right and will be paid on or before the end of the month in which charges are incurred direct to the office or offices issuing the invoices. We also agree to notify you promptly if any such card is lost or stolen.

It is agreed that Hertz reserves the right to refuse to honor any Hertz Company Charge Card without explanation, if such credit or rental is deemed inadvisable.

It is agreed that cards issued will be signed by the card holder before being presented to any Hertz office to obtain service.

Requested by
Name of Company _____

Address _____
(street)

_____
(city) (zone) (State or Province)

_____
(Headquarters City of Company)

Authorized by _____
(Signature of officer or owner)

Title _____ **Date** _____

Bank Reference: _____

_____
(Address)

Other Reference: _____

_____
(Address)

Please attach to this application a list (on your letterhead) of personnel who should receive Hertz Charge Cards giving "Position, Residence, Height, Color of Eyes."

Fill in this application for Company-Authorized Hertz International Charge Cards

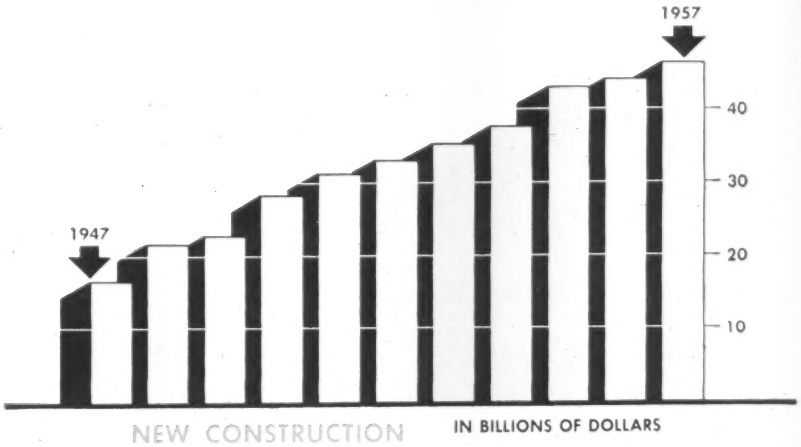
Fill out the application attached—tear off, enclose a list of the personnel requested in the application, and mail at once to HERTZ RENT A CAR, 218 South Wabash Ave., Chicago 4, Ill. Your Company-Authorized Hertz International Charge Cards will be sent to you promptly—as quickly as approved.

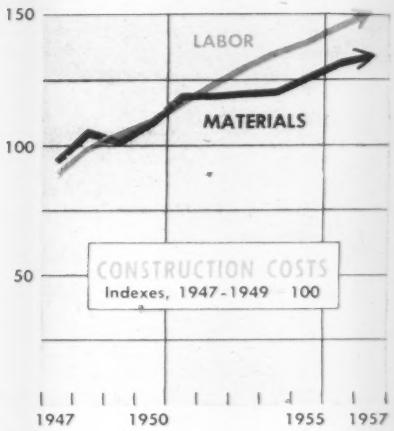
Get more done on business trips with Company-Authorized HERTZ International Charge Cards

Company-Authorized Hertz International Charge Cards provide the *same* privileges as individual charge cards . . . except that rental charges incurred by the user are billed to the company authorizing issuance of the cards, instead of to the individual. This is a convenience to the employer to maintain an accurate record of transportation costs.

More businessmen by far use Hertz. They leave their cars at home, get to their destination quickly and comfortably by plane or train, then rent a Hertz car there. You save valuable time, make more business calls, cover a greater territory, and get back home sooner.

Employees need only show a Company-Authorized Hertz International Charge Card and driver's license to rent a bright, new Powerglide Chevrolet Bel Air or other fine car. The national average rate is only $8.00 a day plus 8 cents a mile (lower by the week). That covers all gasoline, oil and proper insurance. And to be sure of a car at destination—anywhere—a reservation may be made by calling your local Hertz office. We're listed under "Hertz" in *alphabetical* phone books everywhere!





CONSTRUCTION: PEAK YEAR AHEAD

THERE will be another record set in construction activity in 1957, according to estimates by the Departments of Commerce and Labor. If the expected 5 per cent rise to $46.4 billion materializes, 1957 construction volume will be the highest in history, more than two and one-half times larger than in 1947.

Construction costs are expected to rise again in 1957, although at a less rapid rate than in 1956, and undoubtedly will be reflected in higher price-tags for building. But all of the gain in spending for new construction will not result from increased prices alone—the physical volume is expected to rise, too.

Housing is the unhappy exception to the general upsurge. While spending for new dwelling units is expected to drop 5 per cent, an increased volume of additions and repairs to existing dwellings is expected to soften the blow.

The drop in the dollar volume of housing is less than might be implied from the estimated number of housing starts—1 million for 1957, down 10 per cent from the approximately 1.1 million in 1956. Higher prices and a continuation of the trend toward larger, more luxurious homes, may camouflage the tumble in the number of units.

The only other type of new construction expected to decline in 1957 is in stores, restaurants, and garages, down 7 per cent from 1956. In spite of this, total industrial and commercial construction volume will be sustained at the 1956 level, buoyed by gains in the building of factories, office buildings, and warehouses.

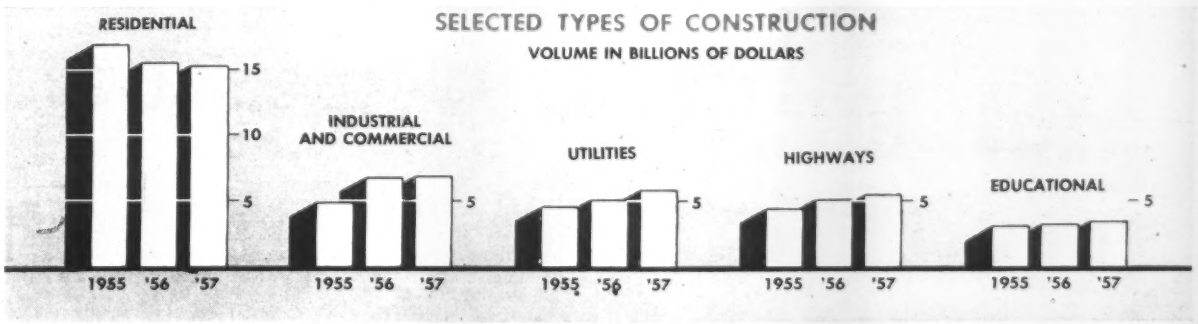
Privately financed construction, constituting roughly two-thirds of the total volume, will be 2 per cent higher than in 1956, compared with a 12 per cent gain in publicly financed construction.

Nonresidential building financed by the Federal, State, and local governments is expected to rise 11 per cent. Expenditures for public schools will surpass $2.8 billion, a new record. Increased Federal aid funds for hospitals will boost their construction, although outlays for new hospitals will fall below the high levels reached in the years 1950-1952.

Construction work on such major projects as the St. Lawrence Seaway and the Oahe Reservoir on the Missouri River will boost conservation and development expenditures. New building at military installations will reach a post-war high of more than $1.5 billion, while outlays for public housing will rise.

Whether the projections for 1957 prove realistic may depend to a considerable extent on the availability of funds to finance private construction. In releasing reports that contract awards for future construction in the latter part of 1956 were dropping below year-ago levels, Mr. Thomas S. Holden, an executive of the F. W. Dodge Corp. said: "Moderate declines in nonresidential building and heavy engineering contract volume and the more substantial decline in residential contract volume reflect continuing tightness in capital funds, rather than any substantial diminution of potential demands. It appears that from here out construction progress will depend very largely on the country's accumulations of savings."

—L. C.



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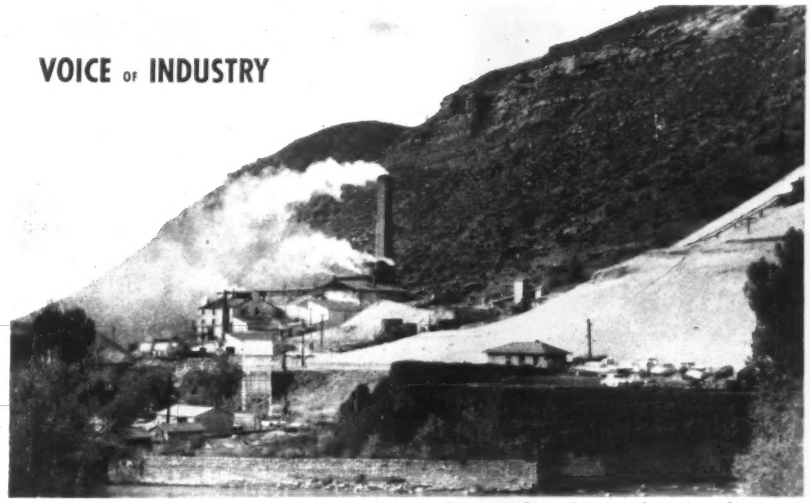

Vanadium and Uranium Processing Plant, Durango, Col.—Howe Photograph

The very benefits business derives from an expanding economy may tend to conceal weak spots in the corporate picture. What are these danger areas and how can they be strengthened? Here is the first in a two-part series of top management answers as reported to Grover Amen.

MANAGEMENT PROBLEMS OF PROSPERITY—PART I

ROBERT B. SEMPLE
President
Wyandotte Chemicals Corporation

Beyond the usual problem areas of management there is one that has not received adequate attention: gaining acceptance of the worth of the business activity *per se* by its many publics, which include its own employees, its local communities, and the legislative bodies.

There is far too little realization of the many factors in our political and social life working against business strength. The subtle differences between conservative liberalism on the one hand and radical liberalism on the other clearly point up the narrow dividing line between paths that can lead to socialization of industry and the destruction of private initiative and those that lead to strengthening of these institutions for the continuing vitality of our country.

As business men, we must take a more constructive part in thought leadership—a more aggressive participation in community and political affairs. If we don't, the energy of those who seek to weaken the private enterprise system, joined with the persuasiveness of their arguments and the lack of virile opposition, could mean slow deterioration and death of the private enterprise system.

W. F. ROCKWELL, JR.
President
Rockwell Manufacturing Company

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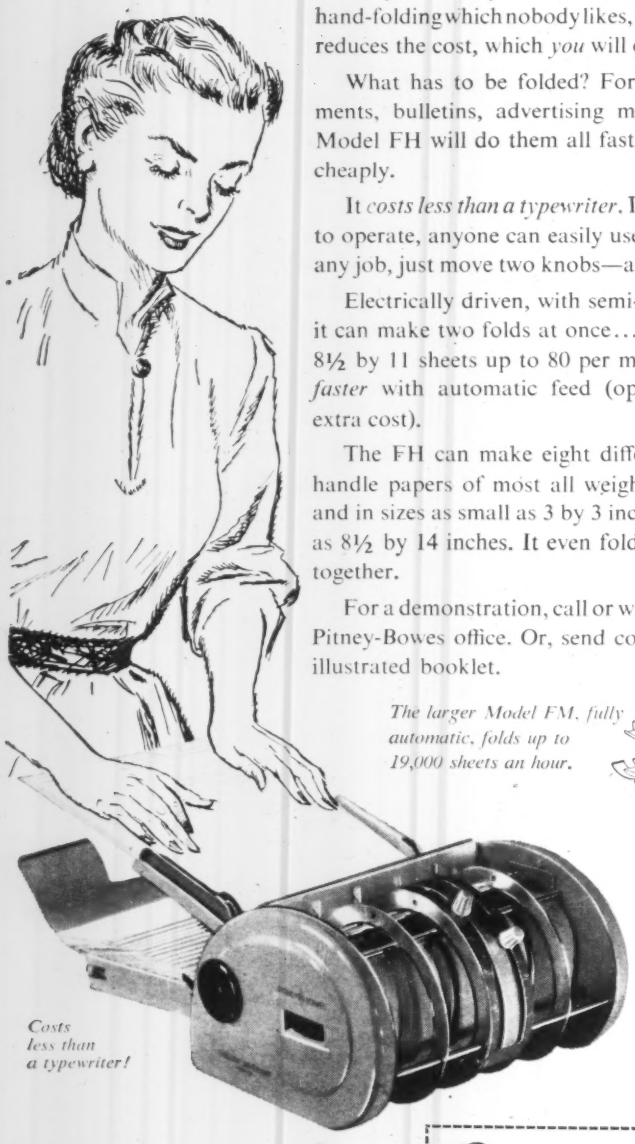

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be felt by all industry in 1957. So management would probably do well to concentrate on programs designed to produce and sell more efficiently—particularly on means of cutting unit cost of distribution.

It does no good to have the twin goals of increasing sales and cutting production and distribution costs unless each of the two problems is attacked individually. How? Well, possibly, by devising programs designed to solve specific critical problems in the two areas. This step might be followed by an effort to coordinate these programs into an over-all pattern which would result in an over-all solution.

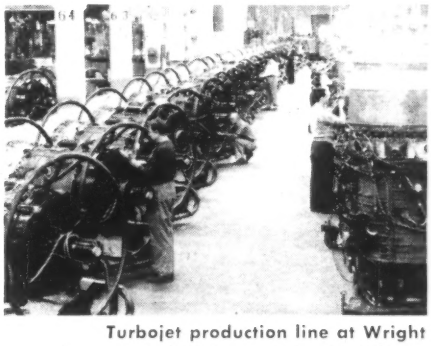
During boom periods, price inflation and high volume tend to compensate for cost inflation. In the event of recession, managements that have ignored costs, as too many seem to have done, may find profits disappearing fast. At the same time, new financing may not be so readily available. The recession itself would probably make it scarce; and the dimmer prospects for suitable return on investment would make it that much scarcer for a small-profit company, relatively speaking.

J. D. ZELLERBACH
Chairman of the Board
Crown Zellerbach Corporation

In my opinion, the most important problem facing American business in 1957 – and the American people generally – is to maintain stability with continuing growth, a task that is likely to be increasingly difficult. The prospect is that 1957 will see new high records in spending and business activity, but this will mean increased pressure for rising prices as demand presses upon resources.

Probably the Government will spend more in 1957 on defense, on welfare, on highway and other public works construction. It will soon be faced with urgent new demands for foreign aid. Business spending for equipment in 1957 is likely to be at high rates to meet the long-term growth needs of the economy. Many wage rates will increase, some on the basis of terms already established by contract; and some wage increases

Light of Liberty Over the Free World



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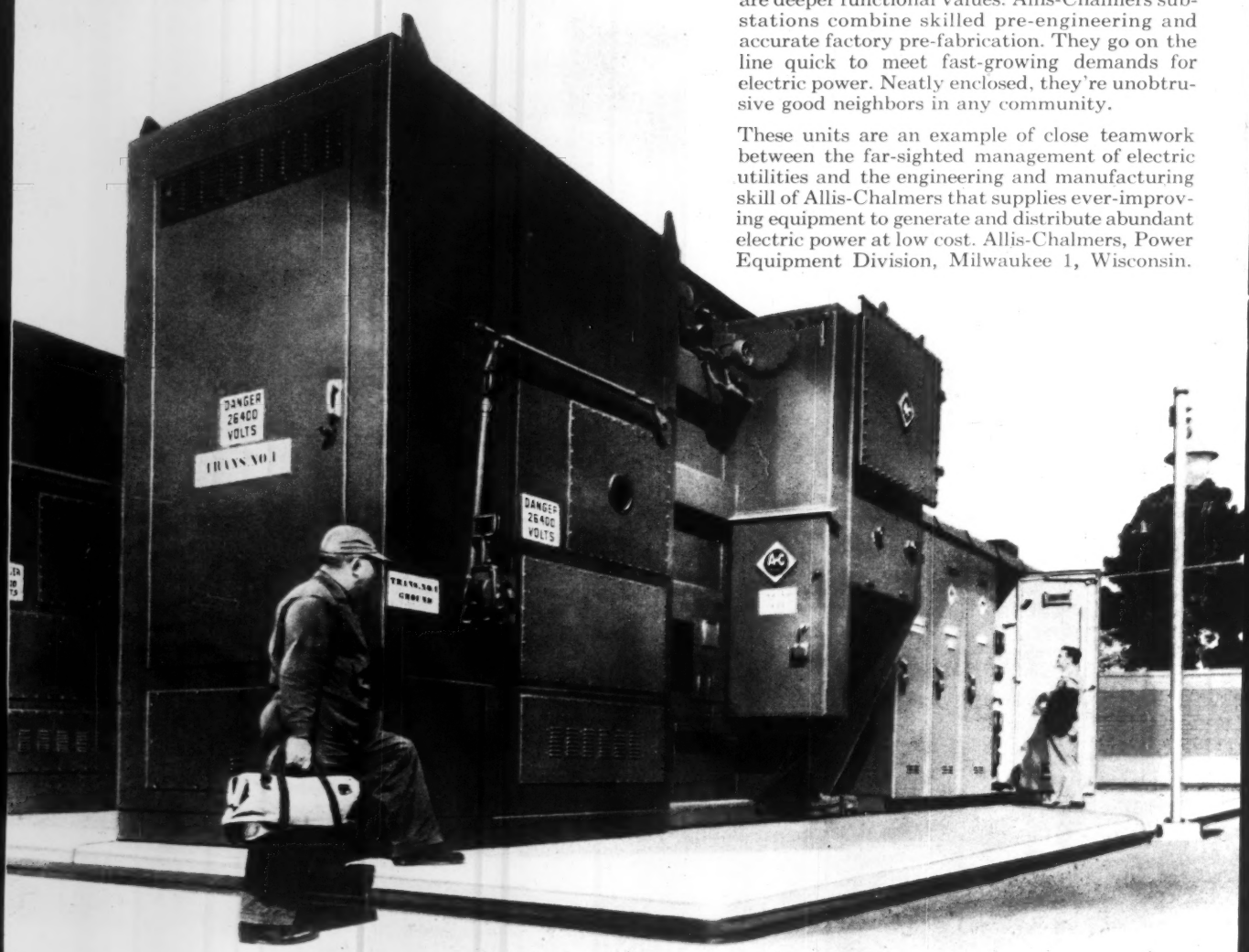

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will not be offset by increases in productivity, although productivity may be expected to increase as the new capacity is installed.

To enhance our national security, we must maintain a stable economic growth within our own borders. We should seek and find better economic answers for the 22 million Americans who live on the farms. We must encourage the broad sharing of the fruits of production. And we must face up to the crisis confronting our educational system—a crisis which threatens to erode our most precious natural resource: the skill, training, and talents of our people. We must also build a sound program for economic development throughout the free world. Our economic growth, and ultimately even our national existence, require adoption of a positive program, first to sustain and then to enhance the power of the free world.

D. R. HULL
Vice President
Raytheon Manufacturing Company

One of the principal challenges to management today is to develop an effective cadre of middle management personnel within its ranks. If future business expansion is to continue at a pace that will satisfy the needs of an expanding economy, management talent should not be spread too thin.

Within the next decade, retirement, disability, and death will claim half of our present front-line management. But the problem is not solely one of replacement; it is also one of obtaining additional talented executives to fill the new posts being created.

To meet these demands, a company must now look to available talent within its own house, rather than to outside sources. Middle management must supply the answer. This means that the so-called management development process within these ranks must be strengthened. Essentially, this requires that a conscious, directed effort be made to develop and upgrade the professional competence of the individual in his job and to enlarge the scope of his work experience.

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COLLECTIVE BARGAINING: THE POSITIVE APPROACH PAYS OFF

There's more to good collective bargaining than simply saying "no." A positive approach not only permits management to get fairer settlements; it may actually mean more amicable employee relations. Some companies have already demonstrated this.

JAMES MENZIES BLACK

YOU CAN'T SCORE unless you've got the ball" is the point before touchdown that every good football coach knows. And it's the point before contract that management is beginning to accept and to use in its new approach to collective bargaining.

It is paying off, too, in terms of more realistic and competitive agreements and in increased union-company understanding. For labor and industry have discovered that it is possible for the latter to be aggressive without being offensive; that if a company has analyzed its problems, prepared itself thoroughly for contract talks, has specific objectives it wants to accomplish in return for which it will grant specific requests of the union, things work out better for everyone.

Time was when it was considered almost lunatic for a company to take the initiative in negotiations. The strategy—today it seems almost simple-minded—was for management to come to the bargaining table to hear the latest proposals from the union, then use those demands as a basis for further discussion. Whatever was conceded appeared, to the employees and to the public at least, a partial fulfillment of the union's wishes extracted from a reluctant company against its better judgment.

The union got the credit; the management paid the bills. The average company bargaining team was as defense-minded as a Bourbon-bibing husband slowly wending wifeward after an all-night poker party where he lost his shirt. Its object was to hold down the score, and if negotiations ended in a goose-egg tie, it was a victory that industrial relations men rushed to report to higher-ups with the enthusiasm of the Greek runner who hotfooted it home from Marathon to pass the message that the locals had really poured it on the Persians.

It was a siege philosophy, a Maginot Line state of mind, and it trapped management in its own status quo. The fierce offensive that organized labor launched against industry under the covering blanket of fire of the Wagner Act forced management into a defensive posture that it didn't come out of until years after the actual attack had expended itself.

The Case for the Defense

It is easy to see why. During the depression of the 30's, with its social and economic upheaval, management stood like the British Square awaiting the onslaught of such partisan raiders as Walter Reuther, Sidney Hillman, and John L. Lewis from the one side, and from the other that of the whirling dervishes of the welfare state, including the staff of portside hurlers of the Roosevelt NLRB. "Hold on to your hats!" and "Hold that line!" became a way of life for

business. A complicated pattern of collective bargaining customs grew up and carried over into a more mature industrial relations age, although the reasons for the customs had long since disappeared. Industry held certain tenets about dealing with unions, and it was almost sacrilegious to break one.

Had a labor relations man been asked to put his credo on paper, it might have read something like this:

1. During the weeks prior to contract negotiations, keep your lips buttoned tight regardless of the union's campaign of provocation and misrepresentation, or its baseless claims designed to gain member support for its forthcoming bargaining position. After all, it's just politics, and will mean little in actual contract talks.

2. Contract negotiation is a cryptic affair, and the less outsiders know about it the better off everyone is. In no case should management make known its proposals or position to employees or anyone else by countering the public statements of the union, even if those statements are entirely untrue. Why? Such a procedure would be going over the heads of the labor leaders. This would irritate the business agent, upset the Government, lead to reprisals from the international, and make a settlement even more difficult to reach.

3. The union should receive full credit for any wage increases or other benefits resulting from collective bargaining talks. Any other course would be disaster, for it would be proof positive that the company was trying to undermine the union with its members and was, therefore, guilty of reactionary labor-baiting.

Of course these views are somewhat exaggerated. Some companies did not subscribe to them and courageously defended their right to explain their views to employees regardless of what unions thought. But the statements are reasonably descriptive of the atmosphere that prevailed. The depression psychology of Henry Wallace's upper-case "Common Man" continued long after the depression was history and still influences, to some extent, the labor leaders who got their start during the class-conscious, anti-capitalistic 30's.

Company officers, taking a tip from the politics of the time, outdid each other in being enlightened. They went around the creamed-chicken circuit telling each other that unions were a good thing, that unions were here to stay, that they had accepted unions. Unions had come to stay all right. But management's attitude toward them was very much like that of the man trying to put a good face on giving up the master bedroom to in-laws who have thrown in their lot with his family on a permanent basis.

Management had accepted the mass organization of industry only after one hell of a fight and was still very much on the defensive in its relationship with labor. Even after the inequities of the Wagner Act were corrected by passage of Taft-Hartley, management did not forget that the statute had high-jumped the veto of President Truman on its way to the law books, and that he had promised to repeal it with all possible speed and return to the utopian situation that had formerly existed. Industry also realized that in any major dispute it had with labor, the Government would come galumphing to the rescue of the latter with the swiftness and finesse of a bull in Macy's china department during the Christmas rush. So why stick your neck out?

The Open Game

As much as anyone else, Lemuel R. Boulware, vice president in charge of public and employee relations services, General Electric Company, is responsible for changing this concept of "punt, pass, and pray" labor relations. He was a salesman originally, and he liked to run with the ball. He believed he had something to sell—his company's employee program. He believed that when employees understood the company's desire to be fair, and when they had the facts on various questions at issue between management and their union representatives, they would accept the company point of view if it were equitable and reasonable. So he applied merchandising techniques to union relations and took contract talks out of the back room and into—well, if not into the open, at least to a room with a picture window. In so doing he added a new word to the industrial relations vocabulary—"Boulwarism."

The basic principle of his plan he described himself when he said: "How do we accomplish a positive objective? Simply by what we have termed our 'job marketing' process. It is a Japanese copy of the G-E overall product marketing program, and practically identical with most successful product marketing programs. This is not to say for a minute that labor is a commodity like a product. What it does say is that product marketing is a process of pleasing

continued on page 52

James Menzies Black has had long experience in the field of industrial relations and has published many articles dealing with personnel and collective bargaining.

He is co-author of the book, *Successful Labor Relations for Small Business* (McGraw-Hill, 1953). In addition to the writing he has done on business topics, he has contributed humor to such magazines as *The Saturday Evening Post*, *Esquire*, *Ladies Home Journal*, *The Country Gentleman*, and *The New Yorker*.

Mr. Black is a native of South Carolina and received his A.B. and M.A. degrees from the University of South Carolina.

He is presently on the personnel staff of a large Eastern company. Prior to that, he gained a variety of experience in union-management problems and in personnel administration through his work both in industry and for management associations.

TO MAKE A GOOD CHOICE OF NEW PRODUCTS, TOP MANAGEMENT MUST LEARN . . . .

HOW TO PLAN A PROFITABLE PRODUCT LINE

Diversification may be wise or dangerous. For profitable results, definite policies are needed.

ROBERT M. OLIVER, *Vice President, Marketing, Thomas A. Edison Industries*

Your company may have well-defined policies on labor relations, financing, salaries, pensions—most phases of management. But have you taken what is essentially the most important step of all and developed a clear-cut product policy?

While diversification may enable a company to smooth out the peaks and valleys of business changes, providing a basket for almost every egg, it has its own pitfalls. Thus it is necessary to think through your product policy carefully before beginning to diversify.

Four out of five new products never become profit-producers. A well-thought-out policy will point to the one in five that will provide you with the payoff.

LIKE the old Yankee peddlers who offered everything from a needle to an anchor, some manufacturers have been providing product lines of dazzling variety. But too frequently diversification has been seized upon as the new nostrum that will make ends meet and even overlap a little.

Many hasty decisions to add to product lines are now being reviewed and corrected. Top management is busy pruning the profit-detractors to free capital, facilities, and people for the products that can take advantage of financial, marketing, technical, and organizational strengths.

Perhaps because responsibility for product decisions has long been exclusively the preserve of the chief executive, the need for formalizing product policy has been felt only recently. But with increased stress on decentralization in many companies, definite guiding lines are required.

Few companies, even the largest, have attempted to state product policies in writing, but the concept of a definite policy is taking shape in modern management thinking. In essence, such a policy will define:

1. The *scope* of the company's product line—the industry or industries in which it will compete.

2. The *length* and *breadth* of the product line—the quality level, the price range, the relationship any given product or group of products bears to profit.

Right answers to questions of *product scope* can prevent a company from travelling down a blind alley of uncharted diversification, help it move over to a profit boulevard of planned and orderly expansion. Sensible analysis of individual products and product lines will bring facts, favorable and unfavorable, to the decision-making members of management. Each product can then be viewed in relationship to its esti-

WHAT CAN A PRODUCT POLICY COVER AND ACCOMPLISH?

Here's a quick summary of management thinking on product policy and diversification as revealed in a survey of 30 companies.

What factors govern the decision whether to add, keep, drop, change, or expand a product?

"The primary considerations are the contributions of the product or product line to return on capital employed and to corporate growth," says a maker of building materials.

A precision machinery manufacturer mentions the possibility of standardization industry-wise as the decisive factor. The company considers, "Whether we think this standardization is good or bad, the cost of the change, and the cost and quality in the industry and its effect on company facilities and reputation."

After reviewing the market trend and demand for a new product, the product's cost structure and break-even point, one industrialist asks: "Are there other investments that would accomplish the same results?"

All companies point up the importance of systematic planning and review. One maker of metal products says: "We make very few moves in the way of taking on a new product. Before we do, we have outside market analyses, thorough examination by our field organization, discussion with all our management groups. We make no hasty decisions without as complete information as possible." As to dropping a product, this company adds, "We consider whether it carries a lot of overhead."

A fifth company says flatly that it drops a product "if the market disappears."

How important is a product policy to companies with diversified lines? Here are sample answers:

"It's the only intelligent, sure way to stay abreast of the times and insure survival," says a primary machinery manufacturer.

Another large manufacturer gives six reasons why a product policy is important: "(1) The corporation has an orderly method for deciding where it should concentrate its growth efforts. (2) Specific marketing and investment proposals can be made on previously agreed-upon criteria, based on information presented in a standard format. (3) Less executive and supervisory attention is required. (4) Each function of the business is placed in perspective. (5) Priorities can be set on projects. (6) All levels of management have a common understanding of objectives."

A third industrialist considers product policy a unifying factor.

A maker of industrial control equipment says that the company considers a product policy important but, "We consider it more important that the organization be geared for action on the broad policy of the company—that is, growth and profitability. Product policy can be deviated from in the light of broader policies."

A highly diversified manufacturer says: A product policy "gives definite direction to product research and company acquisition programs."

Other comments from the companies surveyed add interesting sidelights to the picture:

Q. Is your product policy formally stated in writing? A. "No. However, your inquiry has prompted us to formulate one. When written, it will be communicated to sales, production, and research."

Q. How much does product policy influence acquisition of other companies? A. "One phase of our policy is that we will not produce anything that competes with our own customers on major lines. This often affects decisions on company acquisitions."

Q. What factors most influence decisions affecting product scope? A. "High on the list would be growth potential of the market, saturation of the market, competition and potential profitability. Present facilities and personnel would enter into it. Capital requirements would also bear on the problem."

One manufacturer volunteered the following summary of his philosophy of diversification and product policy: "We want to continue our record as a growth company through the systematic appraisal of markets and the development of products for these markets, as well as through wider and more efficient distribution. We want to provide replacements for products that no longer have promising growth or profit potentials. Diversification is a means of achieving profitable growth."

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mated or actual return on capital employed and its contribution to the company's growth objectives.

Key Factors

An informal survey of about 30 representative companies, conducted by the author for DR&MI, indicates that several factors are considered before any decision is made on product-line scope. They are: capital; facilities; competition; present distribution; and size of market.

To these should most certainly be added personnel, company reputation, and the nature of the market—its compatibility with existing marketing structure and the company's marketing proficiency.

With two exceptions—capital and facilities—these considerations have equal force in both small companies and large ones. While capital is of the utmost importance to all business, larger corporations do not face the same limitations in this area that smaller concerns do. Most of them are confident that, if other factors are favorable, capital can be raised.

Perhaps the greatest single influence in a product-scope decision is the market growth potential. But none of the elements can be ignored.

Just as important in management thinking is return on investment. And "investment" means total gross assets employed, both fixed and current.

Static or declining industry markets are not particularly alluring to the growth-minded executive; nor are those subject to wide cyclical variations, or product areas dominated by strongly entrenched companies. To quote an old company with young ideas, "We want the new

market potentialities." A West Coast producer of laboratory instruments whose growth record has been remarkable says: "In general, we do not try to develop a product if another company already has a satisfactory one of the same type. We attempt, rather, to fill a gap or design a product which will do the job better, quicker, or cheaper than anything currently available."

Generally taboo, also, are products that might compete with those produced by a company's own customers. This is more likely to be the case in industrial than consumer areas.

Executives feel that markets controlled by a single large competitor will probably stay that way, and only fringe benefits will be available to the company that tries to "break in." Conversely, companies already leaders in their fields generally try to preserve their position by development of related new products. There are, of course, exceptions to prove every rule, and some companies earn an extremely satisfying return in tight little markets unwanted by others. But few captains of industry today would become excited over the prospect of getting into the harness business, whereas the very thought of electronics makes them drool.

As each individual product and product line is brought under the microscope of executive scrutiny, critical eyes are seeking profit. Since every business exists to make money —a truism that cannot long be overlooked—it is essential that products be made and sold at a profit. It is equally necessary that those that are not profitable be quickly made so, or eliminated.

It is a paradoxical truism that one man's meat is another man's poison. Some companies owe their existence to a policy of producing a model for every purse and purpose. For others, the profit line is the volume line, and every model must measure up to predetermined minimum volume standards. Both Tiffany's and Sears, Roebuck have successful businesses; if either attempted to invade the other's bailiwick, chances are that profit would go out the window. Some

continued on page 102

Development of a New Product

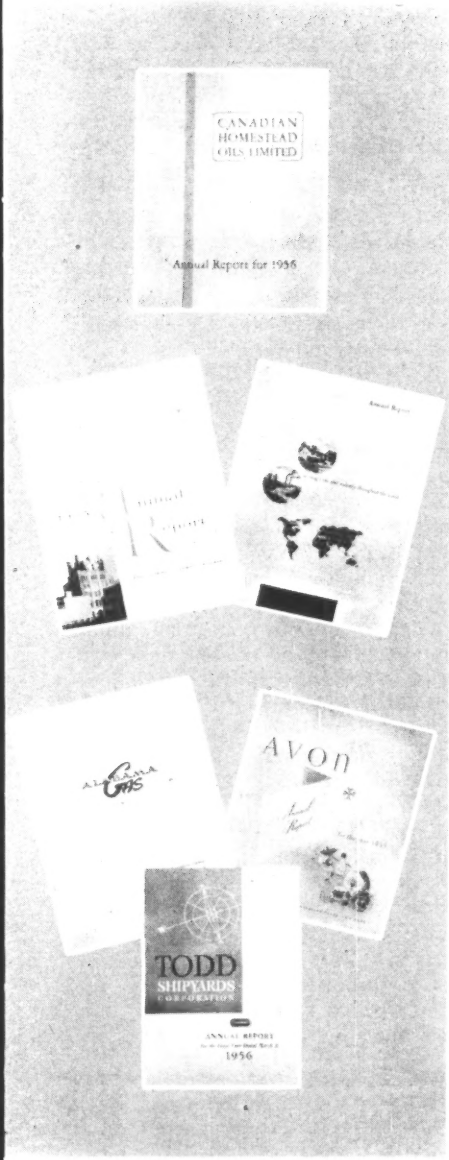
Step	*Department in Charge*	*Departments Assisting*
1. Idea	(submitted by any division or employee or by outsiders)	
2. Preliminary appraisal and assignment of priority	Research & Development	All departments provide data as requested
3. Literature search	Technical Laboratory; Patent	
4. Project authorization	Company Management; Research & Development	
5. Laboratory research	Research & Development	Market Research
6. Product formulation and laboratory evaluation	Technical Laboratory	Sales; Market Research
7. Technical and economic survey	Market Research	
8. Appraisal and recommendations	Research & Development	
9. Pilot plant authorization	Research & Development; Company Management	
10. Pilot plant design	Research & Development	
11. Pilot plant construction	Research & Development	Manufacturing; outside construction company
12. Pilot plant operation	Research & Development	Manufacturing
13. Product evaluation (field trials)	Research & Development	Sales; Market Research
14. Tentative commercial plant design and cost estimates	Research & Development	Manufacturing; Sales; Patent Division (Final patent review)
15. Final technical and economic survey	Market Research	All other departments as required
16. Appraisal and recommendations	Research & Development	Manufacturing; Sales; Company Management
17. Commercial plant authorization	Company Management	All departments (Recommendations)
18. Commercial plant design and cost estimates	Manufacturing	Research & Development
19. Commercial plant construction	Manufacturing	Outside construction company; (Sales Department starts to plan sales campaign)
20. Commercial manufacture—initiation	Manufacturing	Research & Development
21. Sales introduction	Sales	Market Research; Patent Division (trademark protection); Research & Development
22. Commercial sale	Sales	Market Research; Research & Development (Sales Service)
23. Commercial plant—Process study	Manufacturing	

Courtesy of the National Industrial Conference Board Inc.

THE NEW LOOK IN ANNUAL REPORTS

The danger of proxy fights and the tightness of money call for new ways to woo stockholders.

THOMAS KENNY, *Marketing Editor*



Corporate annual reports are taking on a new neat, trim appearance—the "ivy look."

NOT SO LONG AGO the one thing most companies wanted from their stockholders was to be left alone. And this is still sometimes the case. But today many companies—particularly those that are growing fast—are discovering new benefits in cultivating their owners.

With new money as tight as a miser's fist, companies are no longer striving merely to placate stockholders and keep them quiet. The aim is to turn them into new sources for capital; active allies in possible proxy fights; walking commercials for the company; and, of course, customers.

The stockholder of today is a different breed from the market plungers of the 1920's, which ended in the one big plunge. Investors are not only more sophisticated; they are numerous. Nearly 9 million citizens now own stocks in American corporations. More significantly, the average stockholder income is considerably lower today than it was just a few years ago, indicating that varied groups—workers, retired people, and others—are sharing. Each year annual meetings are more actively attended.

This spreading ownership is hailed, of course, as a happy harbinger of the coming of a true "people's capitalism"; but there are more compelling implications for business in the here and now. Large blocks of actively friendly people concerned with the welfare of a company are no small asset.

Many companies go along assuming that they have the support of the owners merely because they receive few or no letters of protest. Frequently, they wake up in the midst of a proxy fight for control.

It is important to realize that when a stock turns sour in the market—even if only temporarily—stockholders don't usually blame themselves for their poor choice, or even the broker for his advice. In almost every case they vent their spleen against the company.

Full or near-complete and continuous disclosure to stockholders can temper their displeasure, for it will show them all the active measures management is taking to bolster the company. But even more important, a skillful program of stockholder relations can prevent the rise of rumors that will send stocks skidding.

For example, a machine tool manufacturer with a distinctly poor earnings record was threatened in recent years with two proxy fights. But an active program of stockholder relations brought the independent shareholders over to management's side.

The Approach Needed

How does a company go about wooing its shareowners? It is primarily a job of feeding them a steady diet of the proper information.

Rather than limiting themselves to the minimum dosage of data required by the Securities and Exchange Commission, and other regulatory bodies, corporations with successful programs of stockholder relations are giving shareowners all the significant information they can possibly absorb. The only data they hold close to their vests are those that could aid competitors—such as new product plans and exact costs.

The latest W. R. Grace & Co. annual report, for example, doesn't gloss over adverse developments. It describes them fully, along with management's efforts to overcome

them. It also contains a twelve-page statistical supplement for studious stockholders and the financial community. The theme of "planned growth" runs through the whole, and the importance of this guiding principle is pointed up in the explanation of present performance and prospects for the future. Since the start of the stockholder program four years ago, Grace stock has gained wide distribution and risen in price, and a $30 million issue of debentures was easily floated.

Steady Diet for Owners

Equally important is the continuity of the information. Surveys of stockholders show that they rate quarterly statements almost as highly as the annual report and considerably above other communication devices such as plant tours or local meetings. (For an example of a company that ran into difficulty by not providing steady quarterly information see the case study on page 43.)

Although companies with fewer than 10,000 stockholders rarely provide interim reports, about 70 per cent of the larger concerns do.

One company, for example, American Encaustic Tiling, received a number of gripes from stockholders several years ago. Most of them stemmed from uncertainty about company plans and performance, although each had been receiving an annual report. It started providing quarterly information, and soon ceased to be the target for stockholders' potshots.

And companies are finding that it is self-defeating to limit the information in their quarterly reports to good news. If shareowners are warned about rough weather ahead, they will be much more willing to ride it out along with the company, for they feel management has their best interests at heart.

Equally important is interpretation of the significance of company developments in both annual and interim reports. Owners find inert data about operations immensely dull reading. Companies are striking the most responsive chords in stockholders by interpreting how recent and coming changes in markets and general operations will affect the owners' equity.

A survey of stockholders made ten years ago revealed that about 30 per cent found annual reports very dull reading. Since many reports at that time were as difficult to read as railroad timetables, it is understandable that many stockholders asked for more illustrations, short summaries, and less space devoted to business complexities. The heavy larding of four-color photos and sometimes meaningless but decorative illustrations was a natural reaction on the part of many companies.

But merely "dressing up" an annual report has not done much good. In fact, lavish reports obviously prepared to impress stockholders may backfire against management. Many shareowners thumb through a slick four-color report and say to themselves: "This thing must have cost plenty. The money should have been added to that skimpy dividend."

Perhaps because the pendulum swing so far, it is now moving back toward what is becoming known as the "ivy look" in annual reports.

This can be described as quiet dignity—with a purposeful avoidance of garish effects. Illustrations are used only when they fill out the story in a meaningful way. Color is used sparingly—not splashed on charts and graphs merely to make them more impressive. The generous use of white space adds to the feeling of probity and reliability, and helps create the neat, trim look.

For example, the Bethlehem Steel annual report contains not one picture, but is packed with facts for seriously interested stockholders. A more colorful review of the year's operations can be had from its internal house organ.

For the third straight year, Socony Mobil, which keeps a running record of all suggestions from stockholders, is using illustrations very charily in its annual report.

The "ivy look" can be seen in the reports of the Universal Cyclops Steel Co., American Standard, Micromatic Hone, Empire Millwork, Compo Shoe Machine, Royal McBee, and dozens of others. And while the trend is still not too widespread, it may grow in the future. Security analysts have not been too receptive to the "picture and pie chart" approach.

> Besides creating good-will for the company, here are the specific benefits that companies seek in setting up a working program for stockholder relations:
>
> - Prestige in the investment market
> - The avoidance of proxy fights and the incursions of raiders
> - A wider distribution of shareowning
> - Merger advantages
> - Higher price for future equity issues
> - More readily available bank loans
> - Stockholder support for management policy decisions

Neglected Audience

Some smaller companies are still unaware of the importance of telling their stories to the thousands of security analysts in brokerage houses throughout the nation. Yet the analysts shape the investment advice that is passed along to your stockholders either present or potential.

Some companies prepare special material for these opinion-makers. For example, Eastern Industries, a $12 million electronics company, sends analysts a basic data book, quarterly bulletins, and an annual report. About six times a year company executives speak before security analysts' lunches. Plant tours are also part of the program. But probably the most important part is the personal contact with brokers and dealers maintained for Eastern Industries by a Wall Street financial relations company.

Since the company embarked on this program four years ago, the number of stockholders has increased fourfold and stock has been distributed throughout all 48 states. And the stock is selling at a price about six times higher.

Who Gets Reports?

Since, according to a recent survey by Robert D. Hay of the University of Arkansas, annual reports can cost up to $2 a copy, it is important

continued on page 44

HOW TO REVIVE STOCKHOLDERS' INTEREST

When a company emerges from its shell of private ownership of stock and seeks public financing, many special problems in dealing with new stockholders are created. For instance, a medium size ($12 million sales) manufacturer recently embarked on a program for wide distribution of its stock and found all of efforts frustrated for about a year.

Yard-Man Inc., a manufacturer of lawnmowers located in Jackson, Mich., had been before November 1954 a privately owned corporation, with all shares held by about 50 people, living in the area where the plant is located. Communication with stockholders was no problem. A phone call to management brought answers on promise and performance.

However, in November, 1954 about one-third of the shares—160,000—was offered to the investing public. Management's objective was to create a market for the stock, make it negotiable, and widely recognized, thus gaining a valuable bargaining edge in any future merger or acquisition. The company felt it could use another product to balance lawnmowers, which have a distinctly seasonal sales pattern.

Soon the stock held by about 1,000 shareowners in 21 states. But after the initial prospectus, the company did not develop communications with stockholders—either directly or through security dealers. What followed was a complete reversal of all the efforts management had made to seek widespread distribution of its stock.

Since stockholders were uncertain about the progress of the company and dealers were reluctant to make recommendations on an unknown quantity, much of the stock flowed back—at a reduced price—to Jackson where the company was known.

No stockholder communications were issued from November 1954 when the prospectus appeared until August 1955 when the first public annual report was issued.

And the annual report itself did little to correct this lack. It was skimpy as a fan-dancer's costume and far less revealing. So the task facing management was to reassure stockholders and dealers that the company was certainly worthy of their attention as a good sound investment. After the start of an active program for stockholder relations the following month and the issuance of a quarterly report in November 1955, interest in the stock began to perk up again.

The program also entailed:

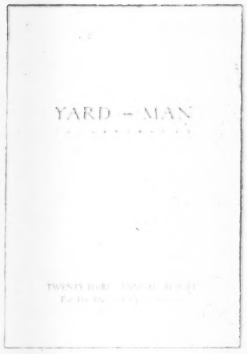
- Direct contact with dealers and brokers and financial services
- Press releases
- Appearance of company executives before financial group luncheons
- And most important of all—an improved annual report

Since the annual report is the starting point for seeking recognition, it was revamped considerably. While the report was humanized, the lavish slick approach was avoided. A simple, dignified layout was developed to impart a feeling of reliability. The new report issued in August, 1956 included these improvements:

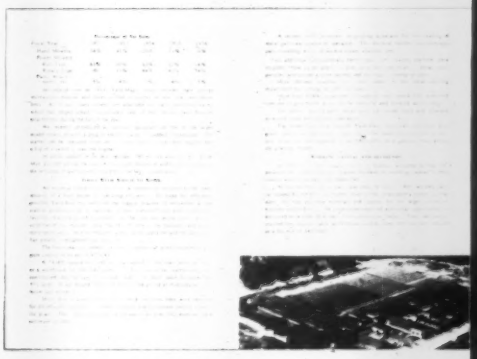
- It identified the business connections of company directors
- Included information on products, plant, and personnel, as well as customer relations
- Introduced a ten-year comparative table for sales, earnings, dividends, and profits before and after taxes.
- Set off the highlights for the year
- Included photographs of the plant and product
- And most important to the financial experts: it presented the financial statements as developed by the public accounting firm.

Since November 1955 the stock has been flowing steadily out of Jackson again so that more than one-half of all shares are now publicly held in 31 states. There is an active market in the stock, which has risen in price, and the company is in a much better bargaining position for any possible merger or acquisition.

Although the management was the same before and after the start of the program for informing stockholders, the company appeared to outsiders in an entirely different light—one which will make any further financing so much easier.



Yard-Man changed its annual report considerably, but the cover layout was largely retained so that some continuity could be maintained with the first annual report.



Much more information was included in the second, improved annual report so that stockholders could learn about the company's market, plant, product and personnel.

To fill the gap between issuance of annual reports, regular quarterly newsletters on company operations are distributed to the 1,100 stockholders and to brokers.

to control the distribution for maximum impact.

A precision products firm had been printing about eight times as many annual reports as were needed for stockholders. When the vice president of sales discovered the reports were being sent to all customers, it came as a surprise to him. For he could have offered many other ways to get the company story across to dealers than by sending them a copy of a publication designed for stockholders.

A survey of the distribution policies of 150 corporations by the Dravo Corporation turned up several unusual ways of putting the annual report to use. One company sends the annual report to more than 2,000 former stockholders. Most other companies limit their communications with departing stockholders to a farewell letter, and even this practice is comparatively rare.

According to the Dravo survey, about one-third of the copies of the annual reports went to non-stockholders. Among the groups to whom reports are sent are publications, public libraries, customers, colleges, and government agencies.

Many large companies offer their reports to the general public by advertising their availability.

Room for Improvement

A detailed survey by DR&MI of the annual reports of 100 medium- and large-sized companies points up the fact that virtually all of the many features in reports have been improved in recent years.

However, there is still much to be done to bring reports up to the point where they give the shareowners what surveys have shown they want. Some companies are still operating on the now discredited principle of the "economic man" in their dealings with shareowners. They think a fair dividend and a minimum of information will keep them out of management's hair. But one expert, Pearson Hunt of Harvard, says stockholders want from their companies "a sense of belonging."

Many companies are finding that it pleases both stockholders and security analysts to include comparative financial data for two years or more. According to our survey, about 85 per cent do, compared with a figure of 64 per cent in 1941.

More significant, however, is the fact that longer comparatives are being made available. Our survey showed that about one-third of the 100 company reports gave financial data for ten years or more.

Many stockholders want a short, easily readable, nontechnical summary of the year's operation. Back in 1941 only 11 per cent provided it—now it appears in about 55 per cent of the reports.

Graphs and charts appear in more than half of the reports compared with only 8 per cent two decades ago. However, there has been little increase in the use of maps to point up operations or show plants and offices—something shareowners express a preference for. Only about 18 per cent of the reports contain such maps, compared with 10 per cent back in 1936.

In other areas, however, notably in the description of products, there has been an improvement. About 75 per cent of annual reports contain pictures and text about products as against only 22 per cent in 1936. This is particularly important for companies making industrial goods or component parts. But ironically, the companies that make the biggest promotional splash about their products in their reports are the consumer goods companies.

Mistakes to Avoid

About two-thirds of the companies provide such useful information as changes in plant facilities and developments in labor relations during the year, and about 75 per cent provide some discussion of the outlook for the year to come in general operations—a feature of universal appeal.

Less critical but quite useful is a table of contents for the report. About half the companies took the trouble to add one. Since most of the reports run about 20 pages—and some as high as 72 pages—and cover a wide variety of topics, the contents page would seem to be a worthwhile addition.

Some shortcomings are the unnecessary use of technical financial terminology without adequate explanations; the use of pictures that don't tie in with the text and serve only to slow down the reading; and most of all, the presentation of major changes in corporate structure—mergers and the like—without adequate explanation of the reasons behind the moves.

Issues that rankle some stockholders at annual meetings are scarcely mentioned in most annual reports. Only one of the 100 companies surveyed included data on executive compensation and only three gave the expenditure for advertising. No mentions appeared of stock options for executives or of the ownership of company stock by management.

Your Report Card

While it is true that the annual report is management's report card for the year and the most important single communication with the owners, it is best used when considered as part of an entire program for keeping stockholders informed.

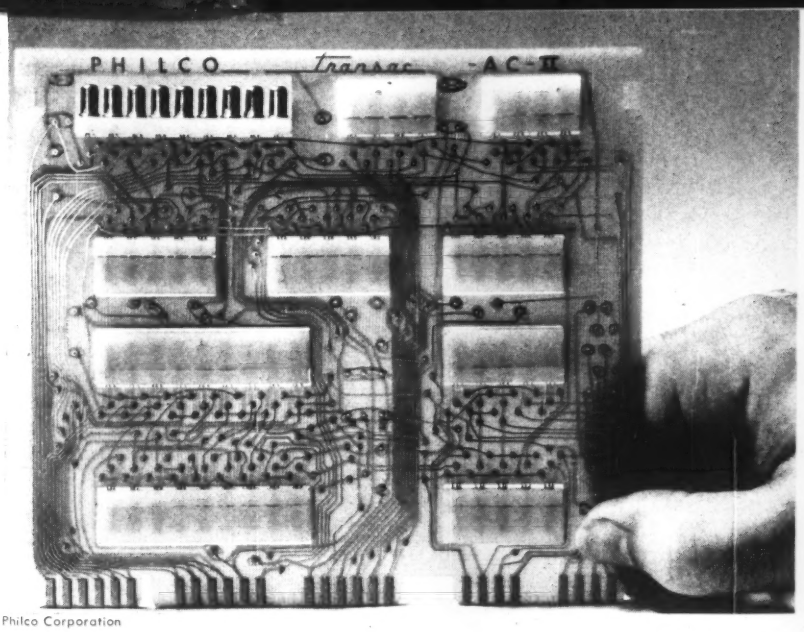
Each corporation has a distinct personality and all materials sent to owners and the financial community should appropriately reflect that personality. This is even more important for the smaller company, for the public already has some idea of the larger companies.

In addition to annual and quarterly reports, some companies think it is important to send stockholders a newer publication—the post-meeting report. A 1949 survey by the National Industrial Conference Board showed that 23 per cent of the companies surveyed issued such reports. This was a considerable gain from the figure of 6 per cent in 1939.

Since then the percentage has probably increased further, but most of these reports are merely quick summaries of the results of voting. Very few companies – Chesapeake and Ohio Railway is one that does—take the trouble to give a verbatim report of questions asked by stockholders.

But however much a company strives to create a warm rapport with shareowners, it is important that the management does not sacrifice its own powers of decision by letting the stockholders invade its prerogatives by making policy.

Some shareholders insist that directors and management are only the representative of the stockholders and responsible to them for almost every act. Modern management must balance the interests of employees, customers, and the general public, as well as those who own the stock. However, once chosen, the directors of a corporation represent not the stockholders but the corporation as a whole.



Philco Corporation

New markets open as technological advances bring new methods and materials. When printed circuits replace hand-wound wires, electrical manufacturers need many items like graphic arts supplies they never used before. This Transistorized Automatic Computer Circuit was made by etching a copper-clad plastic laminate to leave a pattern of conductive lines.

Printed circuits are BLAZING NEW TRAILS TO PROFITS

ANNESTA R. GARDNER, *Industrial Editor*

Photography is a major production process in printed circuit manufacture. It's used to transfer circuit outlines to the insulating "boards" which serve as the circuit bases, and reduce master circuit drawings to size, as Ryan Aeronautical technician does here.

A TRACERY of lines, thin as a spider web, is creating a revolution in the electronic equipment field and a good many other industries as well.

These electrically conductive lines, known as printed circuits, are taking the place of bulky, cumbersome electrical wiring in all sorts of electrical and electronic equipment – radios, television sets, oscillographs, and machine controls. They're making it possible to produce smaller, lighter, more reliable units. They're bringing new production methods and opening up new markets.

In the old days–before printed circuits–electrical equipment was composed of separate components and assemblies, linked together by individual insulated wires. Each wire had to be set in place by hand. The resulting product often looked like a ball of yarn after a kitten has finished playing with it–and sometimes performed that way.

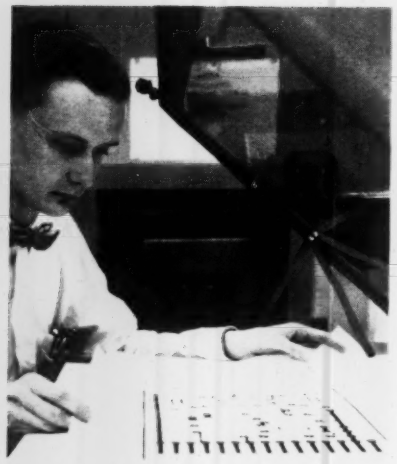
Then came the idea of creating electrical circuits by printing or stamping conductive lines on an insulating base or board–and the new electronic revolution was launched.

There are today a great many different kinds of printed circuits and a great many ways to produce them (see page 46).

In addition to circuits that are actually "printed," there are plated, etched, embossed, pressed powder, and stamped circuits. Circuit bases range from standard phenol-fiber laminates to nylon and Teflon-based materials, and a variety of ceramics. The electrical conductor itself may be copper, silver, or even platinum.

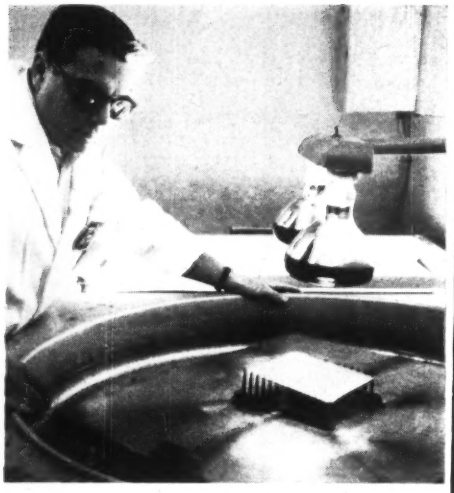
Like most revolutions, the changes touched off by the development of printed circuits have been far-reaching, and sometimes painful.

Brand-new production methods are needed. Where once they worked with separate resistors and capacitors, wires, and stamped metal parts, electrical engineers now are turning to such "exotic" processes as photography and xerography, silk screen printing, and lithography. Even familiar materials like the phenolic laminates and ceramics have to be viewed in a new light when they



Printed circuit production begins with photograph of circuit drawing, like this at BTL.

Photographic negative here being checked is used to transfer circuit drawing to base.



Copper-clad base is coated with photo-sensitive material and image is printed on it.

A printed circuit is born

There are at least as many ways to produce a printed circuit as there are to knot a tie—and not all of them involve printing. But the basic and most widely-used technique is the one demonstrated here by Bell Telephone Laboratories technicians.

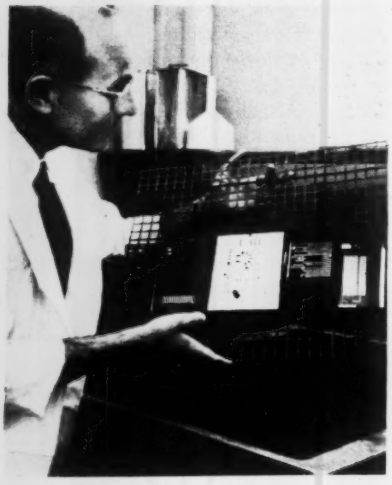
Production begins with a drawing of the circuit. This is photographed, and the negative or a transparency is used to transfer the image to the circuit board.

The board itself may be a copper-clad laminate, from which portions are to be etched away to leave a tracery of conductive lines, or it can be a plain laminate on which copper will be plated in the desired pattern, or it may be a ceramic (see page 48.)

When a plastic base is used, the circuit image may be transferred by the silk screen process using a "resist" (acid-resistant pigment) to outline and protect the areas that will form the circuit; or, as here, by coating the board itself with a photo-sensitive pigment, and developing the image right on it.

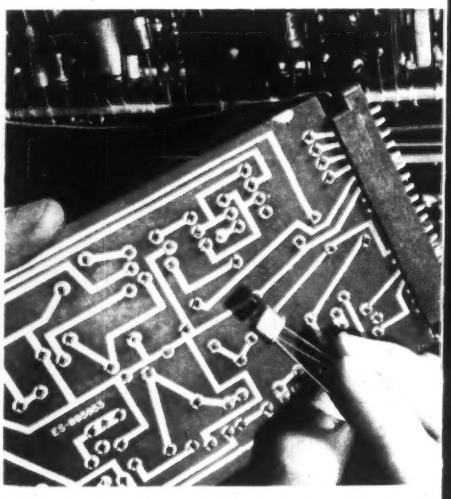
When a ceramic base is used, it may be printed directly—using a silk screen or a special printing press to deposit the conductive metal; or a previously prepared element may be bonded to the base.

There are many variations on these basic themes, and there are also at least two production methods that do not involve either printing or plating. In one, the circuit is punched from copper foil and then bonded to the base. In the other, conductive metal powder is pressed directly into the base. Both have been used successfully, but neither has been widely adopted so far.



Acid bath eats unprotected cladding away, leaving copper foil circuit outline on base.

Solder is deposited on copper by roller coating here. Hot-dip method is also used.



Finished circuit is displayed here, along with transistor that will be used with it.

are considered as bases for these new electrical conductors.

To permit full advantage to be taken of printed circuits, new components must be developed—new resistors, capacitors, tubes, and transistors. Without transistors, as a matter of fact, the outlook for printed circuits would not be nearly so bright. The transistor's small size and low power requirements open up many applications that might otherwise be closed.

It is almost impossible to overestimate the impact of printed circuits on the electronic industry. In television equipment, for instance, as J. Toyzer of RCA puts it, "Printed circuits have had an explosive effect." They are changing the traditional approaches to set design and bringing greater freedom of form and arrangement. But, at the same time, they are creating new problems in fabrication, assembly, soldering, and testing.

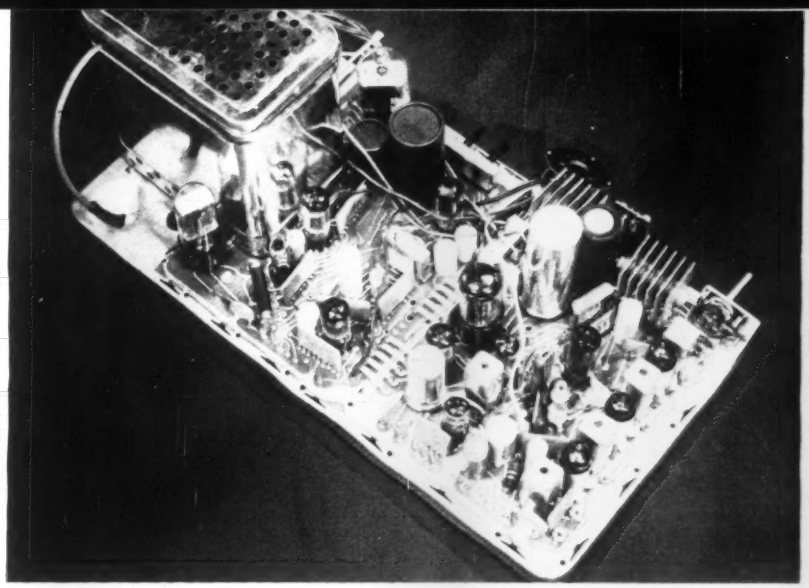
There are personnel problems in the "printed circuit revolution," too. New skills are needed, and new training methods must be devised.

Testing and quality control procedures are also undergoing a major alteration. Instead of checking wire sizes and connections, engineers now deal with problems of line definition and registration. These are familiar to photography and printing, but new in the electronics field. (*Registration*, of course, refers to the proper alignment of conductive lines on adjacent boards or on opposite sides of the same board, while *definition* refers to the sharpness of the lines.)

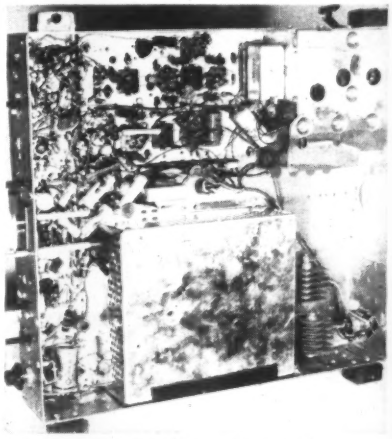
Even plant housekeeping takes on new aspects when printed circuits are being made. As engineers at Ryan Aeronautical Company point out, when photographic techniques are used to reproduce printed circuits, every dust speck on the negative means an exposed area on the copper plate to which the tracing is transferred, and, in the end, a flaw in the "wiring" of the circuit itself.

Though these specific problems do not apply to every industry, they're worth reviewing because they indicate the depth and breadth of the difficulties that are encountered in bringing any radically new development to commercial production.

They're worth reviewing for another reason as well: Printed circuits can open new markets for suppliers



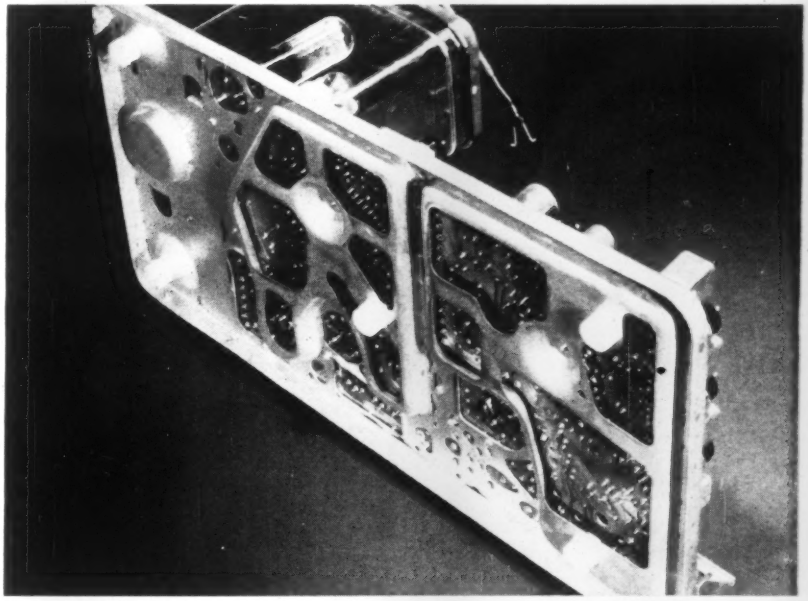
Printed circuits and miniaturized "packaged" components give Motorola TV chassis clean, uncluttered look, save space, simplify assembly, reduce repair and maintenance.



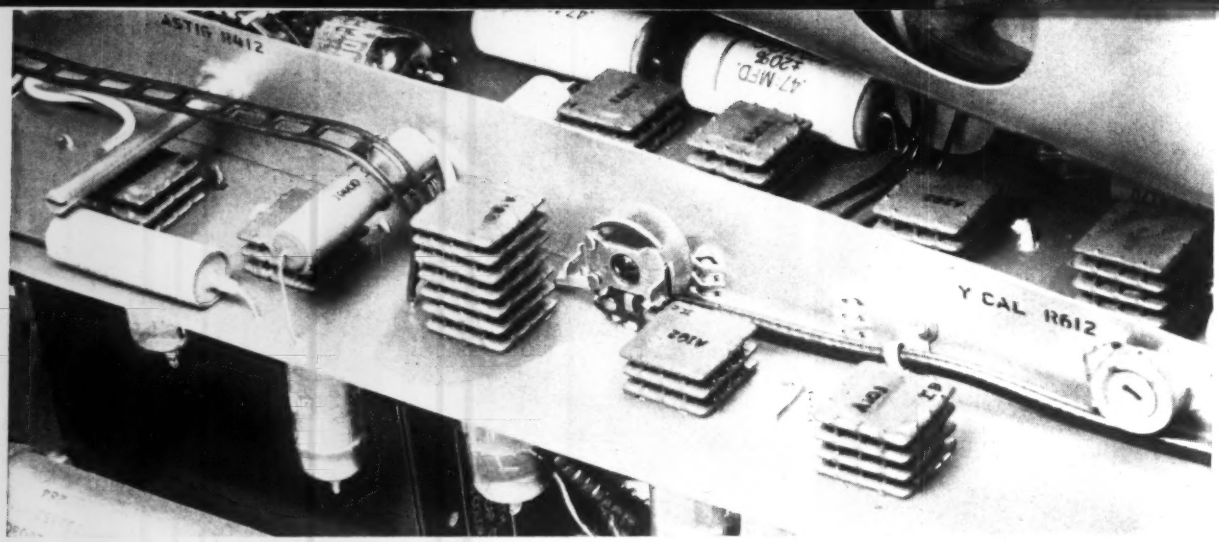
Conventional chassis was cluttered.

Here's how they save

By changing from conventional wiring to printed circuits and packaged components, Motorola was able to eliminate 80 separate parts from this 17-inch television set chassis and reduce its size a good 20 per cent. Motorola engineers emphasize that to take full advantage of these developments, assemblies must be specifically designed for them.



Rear view of new Motorola chassis shows plated-through holes, soldered connections. Note how accessible each one is, and how simple it is to isolate any source of trouble.



Experimental oscillograph, built by Du Mont Laboratories, uses printed ceramic wafer components to save space, insure reliable operation under wide range of temperature and humidity conditions. Separate wires are used only for major interconnections.

Ceramics beat the heat

The heat's on in electronics as it is in so many other fields. Today's big computers generate enough heat to warm a whole colony of houses. Some of them need refrigerating units that are equivalent to 60 tons of ice a day.

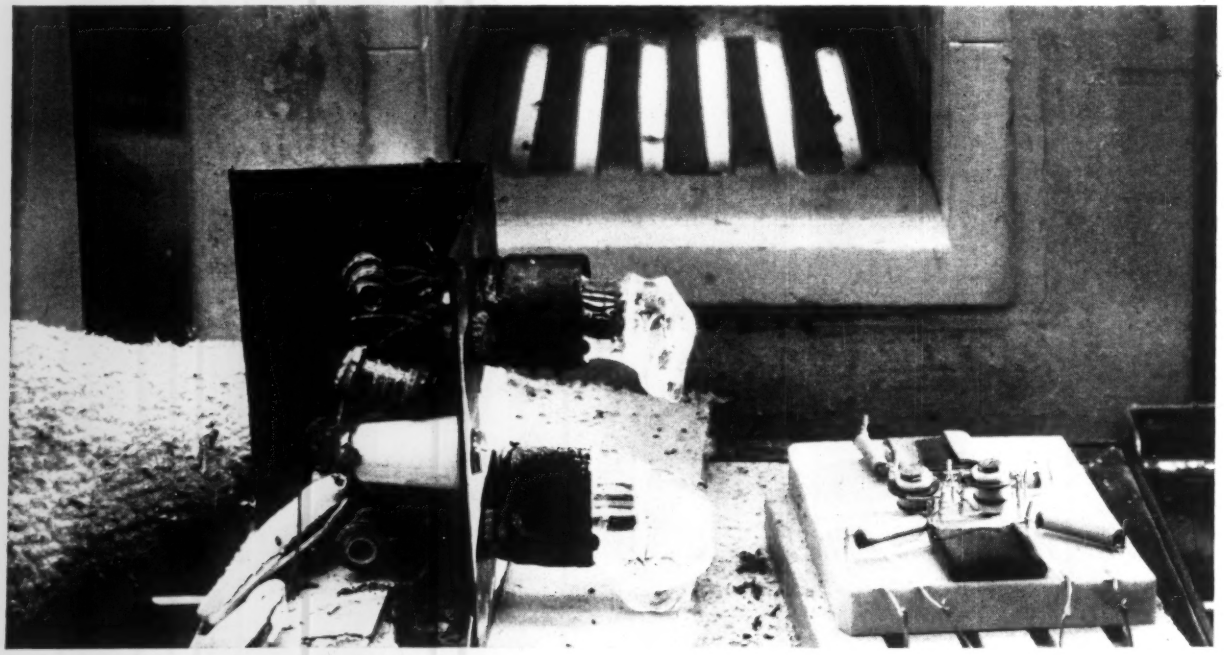
Chemical processing temperatures, too, are rising fast—and, with them, the need for control instruments that can stand the gaff.

At the same time, the trend toward miniaturization makes it more and more difficult to dissipate the heat that's generated.

It's not surprising, then, to find a good many companies turning to ceramics as base materials for printed circuits.

Even where heat is not the primary problem, ceramics are being used. That's because they offer a high degree of dimensional stability, plus resistance to chemical attack, and excellent electrical properties.

For moderate-temperature service, printed ceramics are often combined with printed plastic boards (see photograph above), while all-ceramic units (including ceramic electron tubes) are being developed for service in the high-temperature range—to 900° F. or more.



High-temperature ceramic-based circuit withstood oven roasting at 1,500° F., while conventional unit (left) melted away. G-E researchers devised special components for new assembly, used metallic silver to print main circuit, platinum for connecting wires.

of everything from printing and air conditioning equipment to plastics and paper products.

Container manufacturers, for example, can find new opportunities in designing packages that will fit the needs of mechanized printed circuit production lines.

As R. B. Lynn of Philco Corporation showed the Radio-Electronics-Television Manufacturers Association Symposium on Automation last year, the high speed at which automatic machines turn out printed circuit assemblies means that higher-capacity containers are needed. If each container is not designed to hold a maximum number of parts, he says, "It will require a disproportionate amount of the attendant's time just to keep the machine loaded."

(The complete proceedings of this symposium, and of the 1955 RETMA Printed Circuit Symposium, are available in published form. Information on them may be obtained from the Association.)

As another example of a new problem that means a new market, suppliers of adhesives will find the door open wide for any formulation that can achieve a stronger, more permanent bond between printed circuit base and conductor. This looks like a simple demand, but it is not.

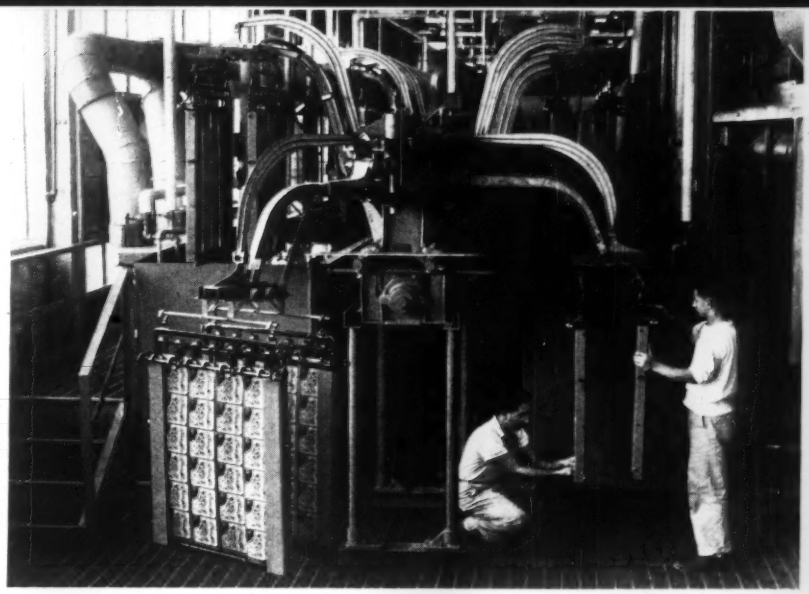
Almost everything that happens to a printed circuit in production and use seems to threaten even the strongest adhesive's grip.

Plating and etching solutions attack it chemically. Dip soldering may raise its temperature to the danger point. Differential expansion and contraction of base and conductor pull and tug at the bond.

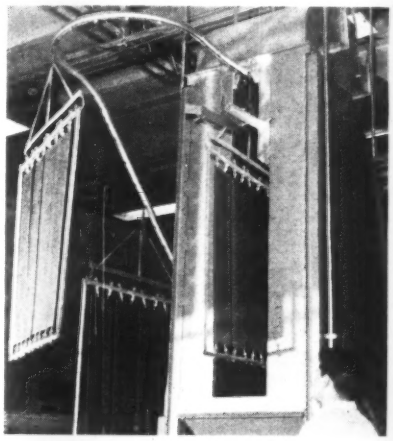
The very nature of the plastics and ceramics used as base materials makes the adhesive formulator's job a tough one. These materials are noted and valued for their resistance to solvents and adhesive compounds. That makes them corrosion-resistant, but it also makes it almost impossible to achieve a good bond.

No wonder the "perfect" adhesive has not yet been developed.

Summing up, printed circuits are opening new markets for many suppliers. They are paving the way for better, more compact, easier-to-service electronic equipment, new production machines and better materials. Can you use them in your product—or sell to those who do?



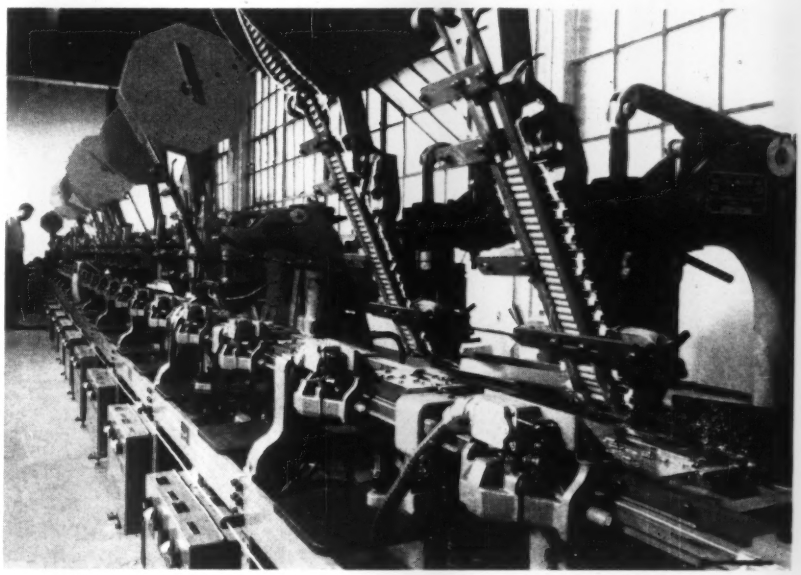
Automatic production line at General Electric Specialty Electronic Components plant can handle as many as 10,000 circuit boards at a time. This is the electroplating unit.



Conveyors carry through cleaning tanks.

Production is the payoff

Adaptability of printed circuits to automatic manufacture is a key point in their favor—particularly when they are being considered for mass-production consumer items like radio and television. Machines like those pictured here can turn out huge quantities of circuits and meet exacting specifications for quality and uniformity with a minimum of supervision.



Automatic assembly machines at GM's Delco Radio Division insert resistors, capacitors, and other component parts in prepared locations on printed circuit panels for auto radios.

Hiroshige landscape with Fuji-san in the background. From the author's print collection.

JAPAN'S ECONOMY: BRIGHT SPOT OR TROUBLE SPOT?

In the race for world markets, the Japanese are realigning industries and overhauling competitive techniques.

RALPH J. WATKINS, *Director of Research, Dun & Bradstreet, Inc.*

As our major Asian trading partner, Japan stands out in bold relief in the Far East. It's the most industrialized of all the nations of Asia. Its economic problems are considerable, its future exposed to many uncertainties. Its industrial rehabilitation in the past decade has been magnificent, but recovery has collided head on with the efforts of many other countries, formerly heavy buyers, to create and build up their own industries. In this race for relative economic independence, Japan has been forced to scrap many of its traditional patterns, seek new means of maintaining outlets for its churning factories. How it is adjusting to these new trends is the subject of this interpretative study of Japan's present economy and the methods it is employing to attain some degree of future economic security.

JAPAN IS ONE of the bright spots in the world today—and if the nations of the Free World show a modicum of gumption and good will, the brightness can last indefinitely. Trouble spot? Yes, as a source of troublesome competition for some American industries—we must admit the recorded facts. But that problem must be kept in reasonable perspective. Trouble spot, or danger spot, for the future? It doesn't need to be.

Another sleek steel link in world trade is forged as shipyards in Japan strive to meet a three-year backlog of shipbuilding orders.

Well-stocked shops and large department stores, like this one in Osaka, serve a people who blend the practical with the gracious.

Tokyo International Airport, August 10, 1956
Left: Kenichi Fujimori, Chief, Plan and Coordination Section, Japan Highway Public Corporation
Center: The Author
Right: Akira Kikuchi, Director, Japan Highway Public Corporation

ABOUT THIS ARTICLE

The author of this article on the Japanese economy spent twelve weeks in Japan during the Spring and Summer of 1956 as director of the Kobe-Nagoya Expressway Survey for the Japanese Ministry of Construction. This was Dr. Watkins' third visit to Japan. His first trip, in 1952, to Japan and Korea, was for the Secretary of the Army; and his second, in 1954, was as an adviser to General James A. Van Fleet, who was on a Presidential Mission to review military assistance programs in Japan, Korea, Taiwan, and the Philippines. In addition to his position as director of research of Dun & Bradstreet, Inc., Dr. Watkins is contributing editor of DUN'S REVIEW AND MODERN INDUSTRY and past president of the American Statistical Association.

There are many ways of looking at Japan, as there are many ways of approaching those islands. What the observer sees is bound to be influenced by his own attitude of mind. If his approach is in terms of critical problems, he will find no dearth of them, for the problems are many and serious. If he goes there with a reasonably open mind, prepared to try to understand this dynamic fifth-most-populous nation in the world, wonderment and fascination are in store for him.

There is no use in asking that the visitor be free of preconceptions; for they inhere in the very fact of sharply different customs and culture patterns. Japan is a "different world," and no end of statistics can convey the nature of the differences. Some things have to be experienced first-hand. But here, we remind ourselves that roughly one out of 80 Americans —more than 2 million—have spent some time in Japan over the past eleven years. Japan is not an unknown land, but to know it is not easy.

Economically prostrate a decade ago, the Japanese people have achieved a recovery of phenomenal proportions. Perhaps the most dramatic figure is Japan's favorable balance of payments in 1955, almost one-half billion dollars. But there are many others of striking import. Despite a population gain over the past two decades of slightly more than 20 million and despite the territorial losses and the destruction of World War II, Japan's present 90 million people enjoy a per capita income or standard of living almost one-fifth higher than that of the prewar years 1934–1936.

Still very low compared with our levels of expenditure, the Japanese standard of living is the highest in all Asia—and the trend is right: upward.

Industrial production is now more than double the prewar level, and the percentage gain for 1956 over 1955 promises to be the greatest for any of the major industrial nations. The total output of her economy, currently about two-thirds higher than before the war, has been rising by around 8 to 10 per cent a year in recent years, compared with a prewar rate of about 5 per cent. Modern

continued on page 72

Machinery-producing machinery is symbolic of the rapid growth of industry in Japan. Machines above produce weaving machines.

Photographs from Japanese Foreign Ministry

Assembly lines keep pace with the rising demands of the Japanese people, as reflected by operations in the Toyata Motor Company.

Just a little help can keep things going

In these days of high employment and general economic good health, the threat to a family budget is not so much a complete breakdown as momentary stalling. When this happens perhaps all that is needed is a small loan to keep things going.

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people with products, and that job marketing is a process of pleasing people with jobs."

Now Mr. Boulware's end-around play did not receive a loud, enthusiastic paean of praise from labor. James Carey of the CIO Electrical Workers, whose union felt the first impact of the policy, screamed with the wounded anguish of an amateur tennis player whose expense account has been questioned. He was surprised to see oncoming traffic on what had hitherto been thought of as a one-way street. But as the years have passed, even the hyper-emotional Mr. Carey has calmed down considerably, and though he may not be 100 per cent happy with the change, his union seems to have accepted the philosophy of "Boulwarism" as a basis for doing business with GE, and it has come up with some very satisfactory contracts as a result.

What Is Boulwarism?

Actually, there are a great many misconceptions about Mr. Boulware's theory of collective bargaining. Some people think that when a company uses this approach it simply analyzes its competitive position, calculates the effect of concessions and then decides what it will offer. Employees are advised in advance of negotiations precisely upon what terms management is willing to settle; and because they have been kept informed of how they stand regarding wages and fringe benefits, they see that the proposal is fair. The union gets the offer on a "That's it" basis and understands the company is willing to take a strike in defense of its proposition.

Mr. Boulware is too good a salesman to stick himself with such an absurdly rigid method of operation. What GE has done is to open up its contract talks to public and employee inspection. It comes to the bargaining table prepared to make a realistic offer and does so. The union knows, and so do the employees, that initial proposals are not made simply as a starting point for further negotiations but represent a well-thought-out and entirely reasonable basis for the writing of the new contract. If the union has proposals of its own, the job of its bargaining committee is to sell them and to

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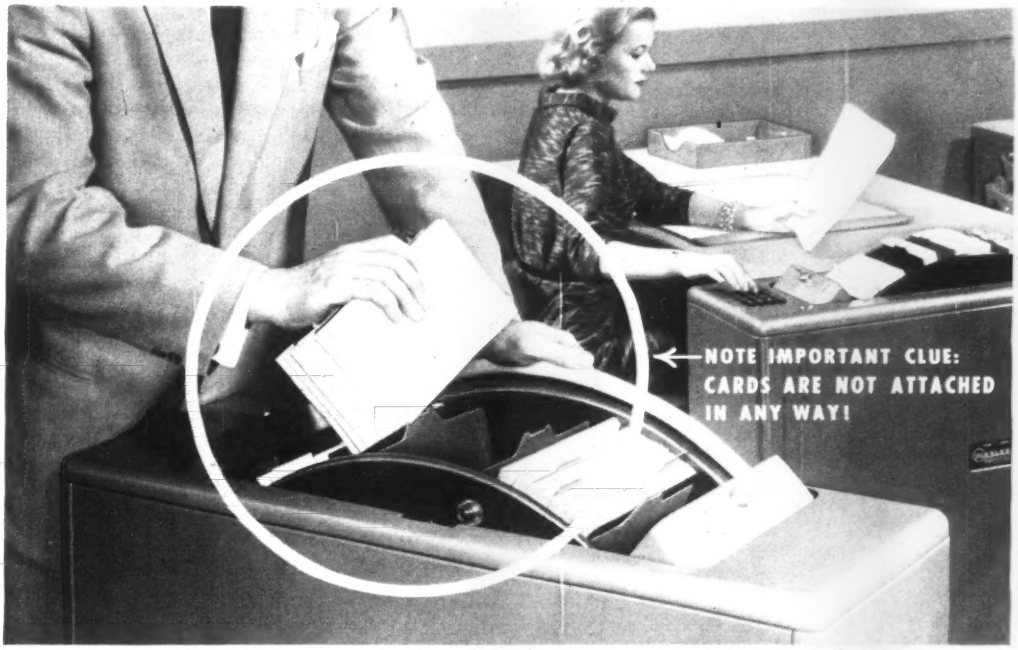

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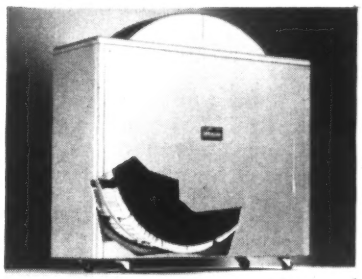

2. No chance of *losing* cards! Revo-File has an exclusive, patented method of holding cards in drum without relying on holes punched in cards or other methods of attachment, which often cause wear, mutilation, and eventual "fall out" of cards from drum into base of file. (No trapdoor needed in Revo-File.)

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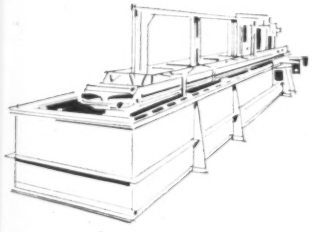

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prove that its demands are practical and more desirable than the suggestions of the company.

This is genuine collective bargaining. Both sides deal in facts, not emotional outpourings; at least they must if they want to get anywhere. Emotionalism is not too effective when full information is readily available. The entire process is open.

Mr. Boulware's idea of collective bargaining may be summed up in a statement he made to a meeting of industrial relations executives in New York. "There is," he said, "the problem of misinformation, misrepresentation, and willful or natural misunderstanding. While this will probably always be worrisome and demanding of attention, there is the comforting lesson of our experience that one misconception after another will disappear when the facts are forthrightly and adequately available to all concerned. In the process we find we have to go at times from the general to the specific about the ideas and statements in question, and to insure understanding must also at times name the person or persons with whom we disagree. In any event, we don't believe we should maintain a private position that is different from our public position, or different from what is understood to be our public position."

The Boulware approach to contract negotiations has had a profound impact on industrial relations concepts. Although Mr. Boulware's flair for the dramatic and original has individualized his methods, there are few companies that have not accepted some of his ideas, at least in a modified form.

Modern management takes pains to inform the public and its employees of its point of view in labor relations. It is less hesitant to give facts and figures about its business—facts and figures that fifteen years ago would have been considered strictly a private affair. Moreover, when a company sits down to bargain, its proposals are much more realistic than formerly. The "war of nerves" practice—in which management and labor approach each other warily from the extreme positions each has originally taken and finally compromise their differences somewhere at the mid-point of the argument—while still known today, is not as pronounced as it once was. The area of the difference is frequently narrower.

This doesn't mean that a negotiator no longer requires skill and timing to get his settlement. He still must know when to make his bid for agreement, and how to guard against offering too much too soon and running out of gas before the union is psychologically ready to accept his proposals. Actually, this "initiative" bargaining takes greater skill and greater imagination than the "giving way to the rear" method; otherwise a company may trip itself on its own offers.

The Approach Positive

Yes, management is taking an intelligent and positive initiative in collective bargaining, an approach that demonstrates it really has accepted unions. What's more, labor is responding to this mature method of negotiating by showing greater maturity itself. When a company knows a demand is forthcoming at next year's contract talks, it no longer depends on other companies to hold the line or concentrates its effort on assembling facts and figures to prove that it cannot be granted. Instead, its attitude is more affirmative. To be sure, if a demand is totally out of the question, management has comprehensive data to back its rejection of it and, usually, an imaginative counter-proposal to make that rejection easier to take. But if what the union wants can be granted provided it is willing to make concessions in such matters as the right of transfer, the operation of the incentive system, the introduction of new methods or new machinery, the relaxing of too rigid seniority provisions, or other hamstringing clauses in the contract, the company is often willing to grant demands that at first blush appear almost revolutionary.

The result is bargaining on facts,

"I'm new around here. Where's the suggestion box?"

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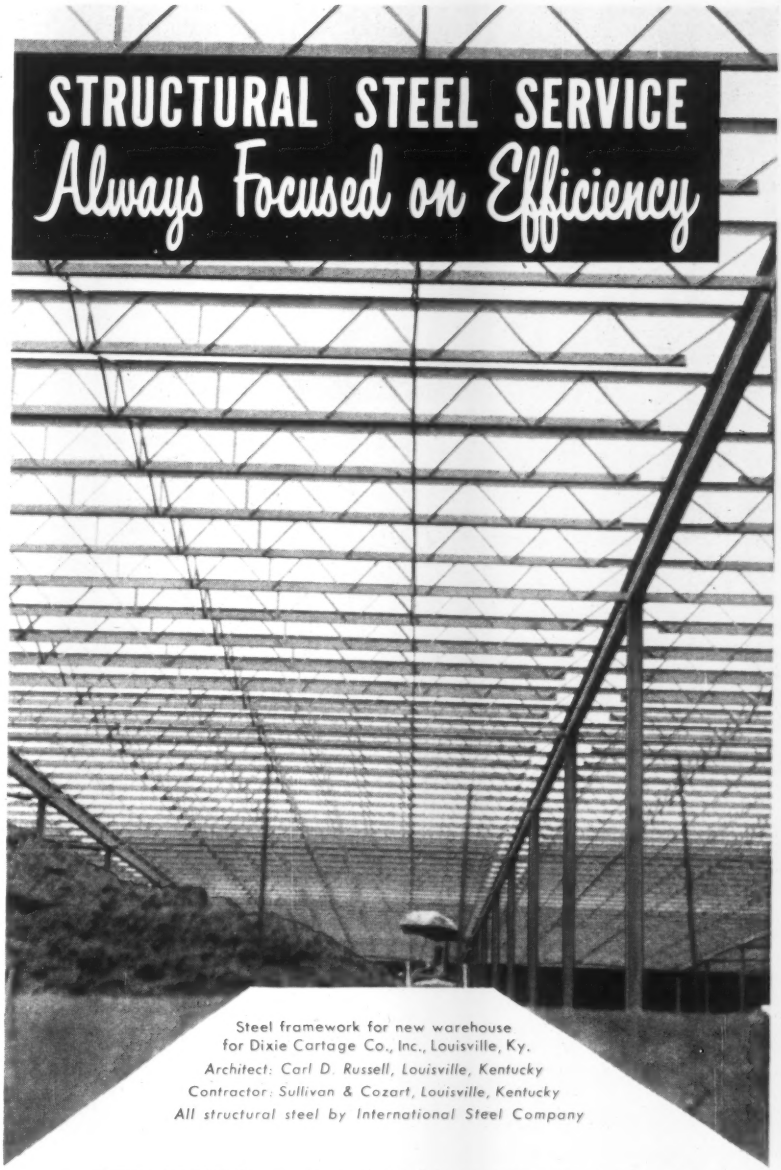

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bargaining in which both sides attempt to find ways to achieve major objectives, even though it means discarding traditional practices or making sweeping changes in long-cherished customs. Contract negotiations are still tense and tricky. But management's desire for greater operational efficiency and greater productivity has given it trading material labor will buy. Industry bargains for the full utilization of the employee's time on the job and is willing to give money, benefits, and increased security in return.

Small Companies Don't Lag

General Electric is an industrial giant. Smaller companies, although their negotiations are more obscure, have not lagged behind in taking the initiative in collective bargaining. As a matter of fact, even more than many of the big fellows they cannot take the risk of sloppy contracts and haphazard contract talks. Competition is too intense, and they lack the financial reserves to survive bad judgment. Small management has taken a leaf from the book of its larger contemporaries and written some highly original pages of its own.

The Rogers Corporation of Rogers, Conn., employs only 300 people, but its methods of contract negotiations have attracted nation-wide attention. Alert, inexpensive communications keep employees filled in on what is happening in the business on a daily basis. Throughout the plant each day bulletins are posted telling Rogers people what new business came in, what orders were lost and why, what problems manufacturing is having and how they are being solved, how the company stands competitively. These bulletins are called "WHY" ("What Happened Yesterday"), and they form a sort of running report from management to its people.

Contract negotiations are conducted in what amounts to a goldfish bowl. Saul Silverstein, the company's president, believes there is no better method of economic education than collective bargaining, and he has set aside a room in his plant, called "Room for Understanding," where monthly meetings with the union are held. They aren't private, either. Spectators often drop by to listen. If a contract clause is not working properly, there is no need to wait until the expiration of the contract

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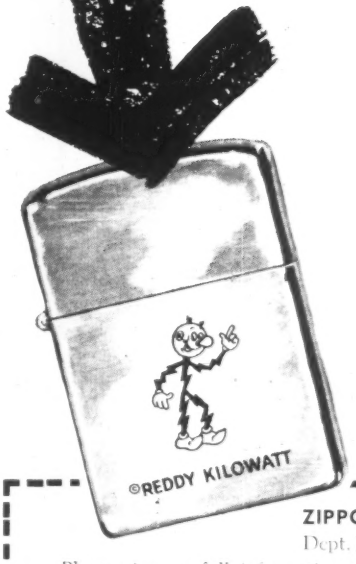

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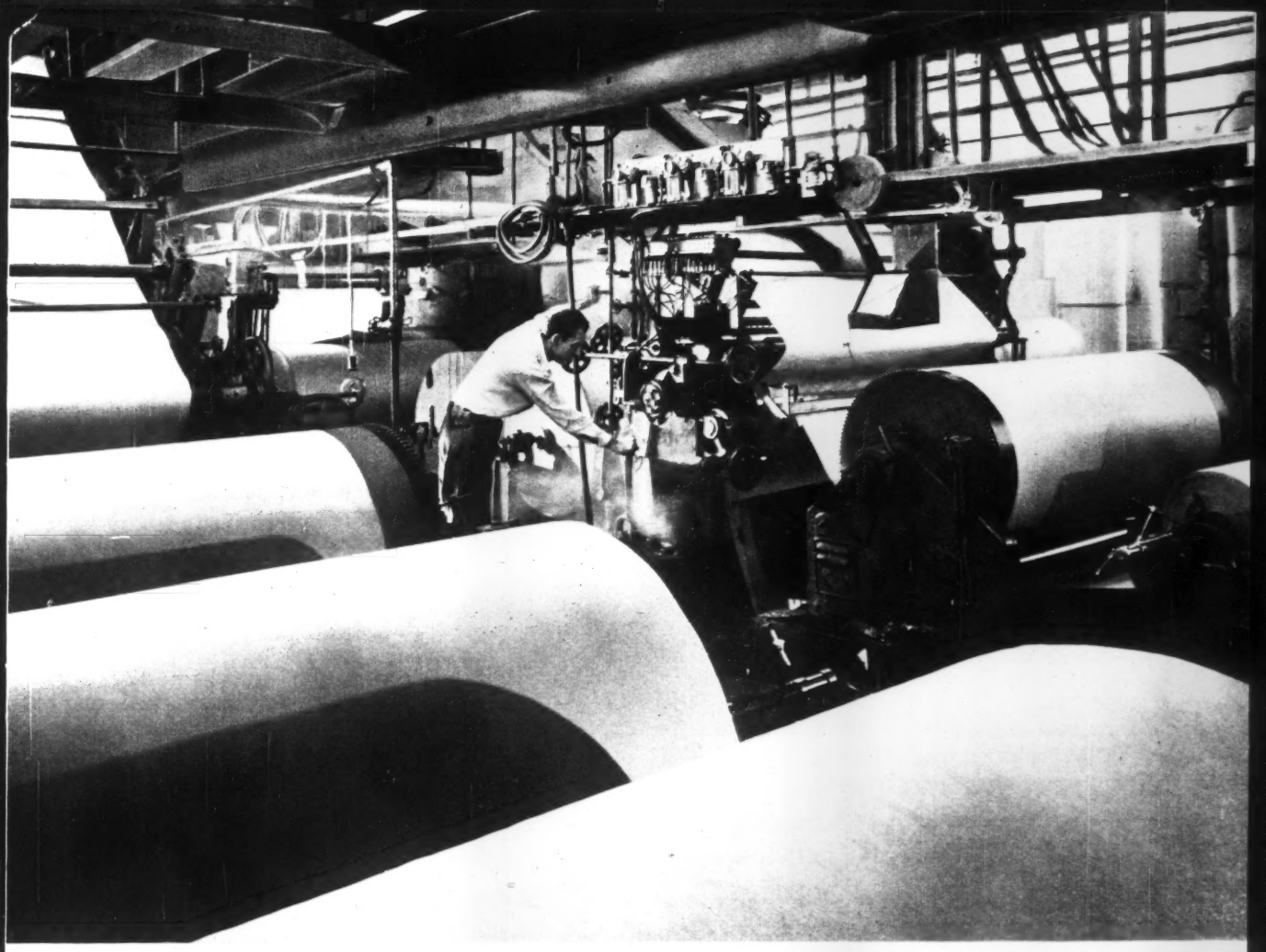
to renegotiate it. It can be changed any time. When a revision is made, a "memo of understanding" is prepared, and becomes part of the agreement superseding the old terms. The Rogers Corporation and its union even conducted one of its actual bargaining sessions over closed circuit TV at a national conference to show 2,000 industrial relations executives how it approached its problems.

The Rogers method may be a little too gimmicky and flamboyant for everybody, but it has worked at Rogers. A sincere understanding of each other's problems exists between labor and management, and this is accompanied by respect. That doesn't mean that when there is disagreement over an issue either side pulls its punches. They don't. The difference is this: Neither of them questions the other's motive.

Out in Ohio the Gardiner Board and Carton Company – it's much larger than Rogers, but its employment of about 3,000 is still small by large company standards—has based its economic education program on its yearly contract talks. It uses the letter to employees to give precise information about its business situation, and has no hesitation explaining to its people how it stands on any issue that may be under discussion in collective bargaining. Foremen participate in pre-bargaining sessions, and sit in on actual contract talks on a rotating basis. Information about the progress of these talks is not kept secret either. Supervisors are briefed daily on what happened during bargaining, and they are able to answer employees' questions with authority. What's more, when the contract is settled, the company sends a letter to each man and woman on its payroll explaining exactly what the new contract contains and how it will benefit them. Union demands that were rejected are discussed in a matter-of-fact way, and the company tells why they were unacceptable. It also informs its employees of the reasons behind its own requests for changes in the agreement.

What sort of relationship does it have with the union? A warm and pleasant one. There are differences of opinion, certainly, but they are threshed out logically in a climate of mutual respect.

The U.S. Metal Company of New Jersey has found that thorough and



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An efficient, dependable, low cost steam source for processing corrugated paper materials is a "must" with the Hinde & Dauch Paper Company. For 36 years they have found such a source in B&W Boilers. On the basis of this experience, it was natural for H&D to install two B&W Integral-Furnace Boilers at their new Kansas City, Kansas, plant.

Whether You Use steam for processing, like H&D, or even only for heating, you should examine your steam costs. You'll find that you're burning an awful lot of money every year. This money you're burning is what counts — not the first cost of your equipment.

Did You Know that most boilers consume their initial cost in fuel every year? The fuel bill for many boilers, during their normal life expectancy, will amount to several million dollars. Unless a boiler is well-engineered, well-serviced, and well-maintained, its efficiency can drop 2 or 3 per cent or even more. And this amounts to a substantial sum of money.

That's Why you can't afford anything but the best for your steam operations. B&W gives you top level engineering, long range sustained economy, and the best performance. Nearly a century of steam generating experience and a national network of plants and engineers are at your service. B&W will be glad to discuss your steam needs with you.

The Most Authoritative work on the subject, "Steam, Its Generation and Use," covers all of the applications of steam to industry. It was written by the same B&W engineers who can bring you long range sustained economy for your steam operations. We will be glad to tell you how you may obtain a copy for yourself or your engineers. Just drop us a note on your company letterhead. The Babcock & Wilcox Company, Boiler Division, Dept. DR-1, 161 East 42nd Street, New York 17, N. Y.

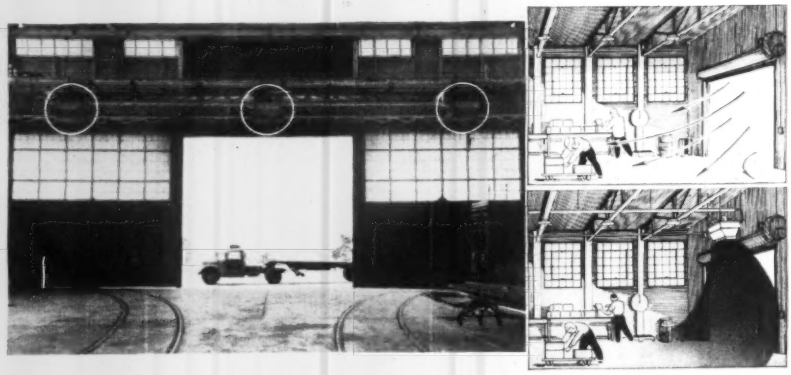
G-825-1B

BABCOCK & WILCOX

BOILER DIVISION

MODERN STEAM MAKES YOUR PRODUCT BETTER AT LOWER COST

In cold weather
OPEN DOORS
can cause labor unrest
...*Eliminate cold blasts* with
WING DOOR HEATERS



When large outside doors are opened in winter time:

1—Cold drafts rush in.
2—Workers are chilled.
3—Health is endangered.
4—Production lags.
5—Heating system is strained.

Avoid these ill effects by installing Wing High Velocity Door Heaters.

As soon as doors are opened a curtain of hot air covers the open doorway. Workers inside then feel only a comfortable, warm gentle air movement. Wing Door Heaters use little steam as they operate only when doors are open. Actuation is by thermostat or a door switch or both. Write for Bulletin DH-2A.

L. J. Wing Mfg. Co. **315 Vreeland Mills Rd., Linden, N. J.**
Factories: Linden, N.J. and Montreal, Canada
In Europe: WANSON, Haren-Nord, Brussels, Belgium

Wing
High Velocity
DOOR HEATERS

L. J. Wing Mfg. Co. DR-1
315 Vreeland Mills Rd., Linden, N.J.

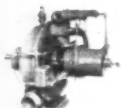
Please send me Bulletin DH-2A—Door Heaters

Name.....
Firm.....
Address.....
City.....Zone.....State.....

WING REVOLVING HEATERS

WING FRESH AIR SUPPLY HEATERS

WING DRAFT INDUCERS



WING TURBINES

WING BLOWERS

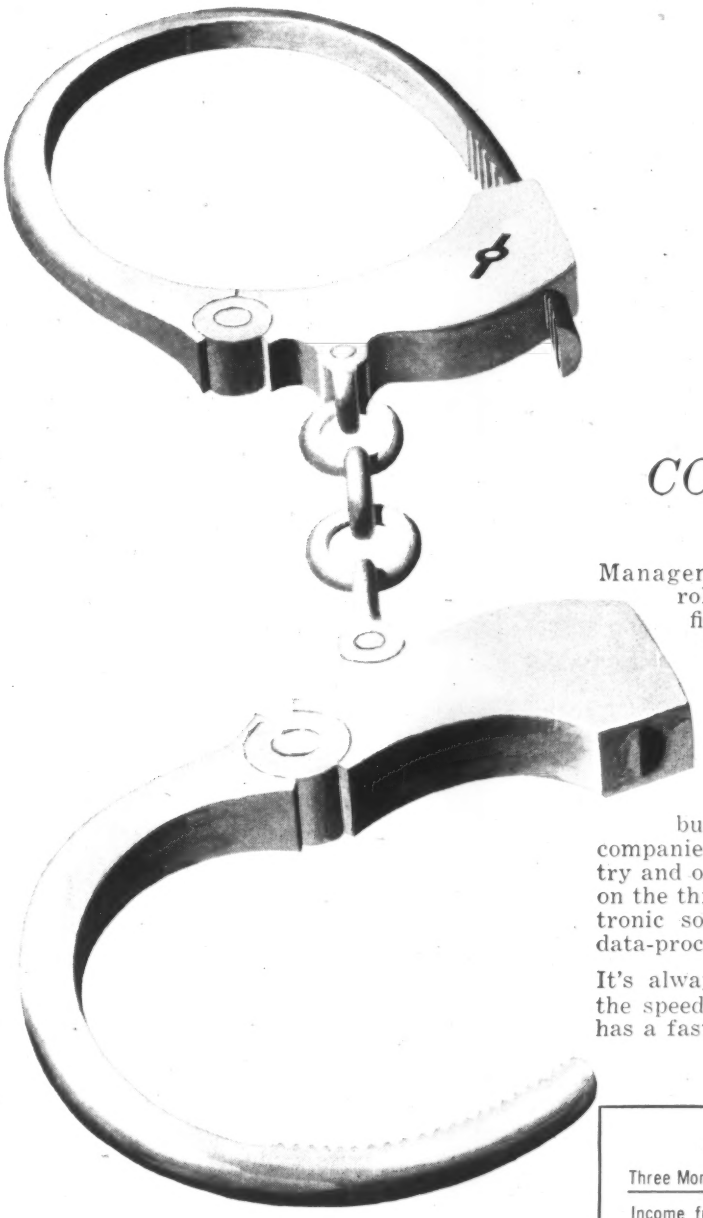
long-range preparation for collective bargaining, based on sound year-round communications, pays big dividends. U.S. Metal, too, is a smaller company. But it has imagination and does a job of telling its story. All an employee has to do to learn what has happened that day at his plant is to pick up the department telephone and dial "9." A tape-recorded news story pours the answer right in his ear. When collective bargaining is being conducted he gets the up-to-date facts on how things stand, right from the telephone. Rumors don't bother him. He knows the situation as it is.

How to Be Affirmative

The companies that have been mentioned are not unusual. Rather they are typical of the positive approach to collective bargaining that smaller companies have taken. So, simply because your company is small, there is no need for you to throw up your hands in despair and groan: "We don't have the time, the money, or the staff to do the work necessary for sound preparation in collective bargaining. We accept the pattern, or as much of it as is forced on us."

You don't need to bargain smartly. You need brains, persistence, confidence, and insight. Initiative means something more than being thoroughly prepared. The company that sits down at the bargaining table ready for a fight usually gets one regardless of how much data it has gathered to prove its case. The firm that bargains to work out a settlement has a better chance of getting a good one.

No, you can't reject creativity for negativism in contract negotiation, no matter how brilliant or justified your criticisms of the union's proposals may be. You've got to be a salesman and you've got to sell the labor relations philosophy of your company. That means you must have a definite labor relations philosophy. You will notice the managements that have the best employee relations records share one common characteristic—they have a clear, positive, well-defined set of principles that guide their operations, and everybody knows what those principles are. What's more, they sell their points of view aggressively. But then, the good salesman is always aggressive—he has to be. He believes in his



Royal McBee unlocks the handcuffs of BUSINESS COMMUNICATIONS

Management couldn't start a production line rolling; Sales couldn't write an order, confirm one, or relay it to Production without COMMUNICATIONS.

Hastening the word of business is Royal McBee's prime concern. That's why Royal manufactures more and better typewriters than any other company in the world. It's the reason McBee continues to create the business forms and business methods which spark economies in companies of all sizes—large and small, in this country and overseas. And it's why now Royal McBee is on the threshold of applying new and startling electronic solutions to many of today's problems in data-processing.

It's always advantageous to remember that when the speed of a word means business, Royal McBee has a fast and economic answer.

SUMMARY OF RESULTS

Three Months Ended October 31st	1956	1955
Income from Sales of Products, Services, etc.	$26,174,080	$22,782,404
Net Profit after Depreciation but before Federal Taxes on Income	$ 3,298,149	$ 3,132,697
Provision for Federal Taxes on Income	1,693,013	1,565,360
Net Profit after Depreciation and Provision for Federal Taxes on Income	$ 1,605,136	$ 1,567,337
*Earned per Share—Common Stock	$ .99	$ .96**

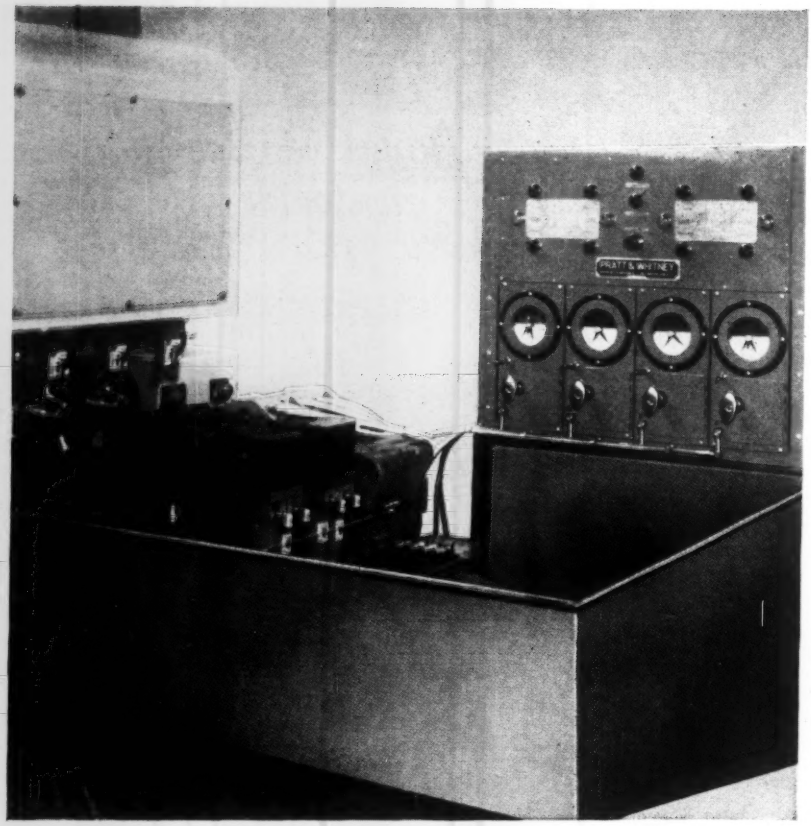
*Computed on 1,535,074 shares currently outstanding.

**Includes non-recurring income equal to 14¢ per common share resulting from an award in litigation.

(Subject to year-end adjustments and audit)

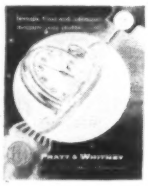
ROYAL McBEE CORPORATION

Westchester Avenue, Port Chester, New York



Automation Gaging

THE NEW APPROACH TO HIGHER ACCURACY AT LOWER COST – Pratt & Whitney Automation Gaging Systems have been successfully applied to a wide variety of machines for both parts and continuous production. In a typical installation . . . an automatic dual boring machine producing precision small parts . . . P&W Gage Heads check the workpieces as they are machined. Gage impulses, fed back to the machine, are used to re-set the cutting tools automatically *before* required tolerances are exceeded. Results: Accuracy is held to .0003" at the very high output rate of 120 pieces per hour. Reject losses are practically eliminated!



Write for more information
Pratt & Whitney Company, Incorporated,
42 Charter Oak Boulevard,
West Hartford, Connecticut

GAGE BLOCKS . . . STANDARD MEASURING MACHINES . . . SUPERMICROMETERS . . . COMPARATORS
CONVENTIONAL GAGES . . . THREAD COMPARATORS . . . AUTOMATION AND CONTINUOUS GAGES

PRATT & WHITNEY
FIRST CHOICE FOR ACCURACY
MACHINE TOOLS • GAGES • CUTTING TOOLS

product and wants to convince the other fellow. But he is not truculent or overbearing, and that's where some companies make their mistakes. While it's all right to tell the truth and let the chips fall where they may if the occasion demands it, it does you very little good to pick up one of the chips and put it on your shoulder afterward. Somebody will always try to knock it off.

So if you want to take the initiative in collective bargaining, you need not worry about the size of your company. Actually, if you run a little plant you have a break. Your problems are concentrated in one small place and everybody can see them. They're easier to explain. You don't require an elaborate communications set-up. You can get your story across through word of mouth and through smart supervisory leadership.

Positive Bargaining Checklist

There are certain things you must do to get your program off the ground. First, define your labor relations philosophy, and see to it that this philosophy guides every act of your management. Make sure that the employees understand it and that your foremen understand it. And the union representative must understand it, too. This takes work and training, but it's worth while. Contract negotiation is a continuous job, and it's too important to leave to a group of professionals in a hotel room, no matter how competent they may be. While it is impossible to give a detailed checklist of contract items that may have a bearing on the continued financial health of your company, the list below may be of help. If you keep the suggestions in mind, you will not discuss union demands from the standpoint of *why* they can't be granted. You'll try, rather, to explore *how* they can be, at least some of them, through mutual concessions.

AN EIGHT-POINT PROGRAM FOR POSITIVE BARGAINING

1. Make sure that you know the cost of labor in your plant as it applies to every department. This cost should include each operation from raw material to the time the customer pays for the product. If you know the price of your labor, you can put a price tag on the union

the fastest gummed tape

human hands can use

blue ribbon

with Super Speed Renacel. With Blue Ribbon in your shipping room, everything happens *fast*—activation... sealing... bonding. It flows from the dispenser smooth and supple as silk... whips around cartons like lightning... adheres tenaciously no matter how long cartons are stored. Package production rises swiftly; costs come down. And all this happens even if you seal with ice water and in refrigerated rooms. Blue Ribbon is odorless too, a convenience your personnel and customers will appreciate.

Blue Ribbon is coated with Super Renacel, the adhesive that brings unparalleled efficiency to your sealing operation. For a FREE TEST SAMPLE of *Blue Ribbon* gummed sealing tape with *Super Speed Renacel,* write on your letterhead to Dept. D-71.

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Or he may be a banker who would like some assistance in analyzing his investment portfolio.

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contract. If you know the cost of labor for each operation, you can calculate the value of changes in the contract that eliminate or reduce restrictions on your use of your employees' time.

2. See that your labor contract permits you to be competitive. You should have a thorough knowledge of the wage rates, the fringe benefits, and the other dollar clauses of the agreements of companies in your neighborhood and in your industry.

3. Develop a positive and detailed program that aims at definite labor relations objectives. Nobody can take dead aim on the future, but that's no reason for ignoring it and improvising.

4. Be certain that any technological or methods changes that you plan in the manufacture of your product are negotiated well in advance of their installation. Coordinate your planning. Don't let the engineering department come up with new ideas for money-saving equipment or methods and then try to install them unilaterally or negotiate them into the contract at the last minute. Pave the way for change.

5. Remember that "time" is often more valuable than money. "Mutual consent" clauses may cost you more in the long run than a big wage rise or an expensive insurance or pension plan.

6. Don't bargain on the union's demands. Analyze your contract to see where it needs revisions or modifications to give you greater efficiency. Then ask for them. Remember, collective bargaining is a two-way street, and the union will "trade" to get what it wants.

7. Don't try to change things over night. It's your job to establish a climate for sound contract negotiations. You do that through communications and through being reasonable.

8. Disregard such phrases as, "No need to rock the boat." "This will upset the apple cart." "Don't go looking for trouble," or "We've gotten along all right under the old provision; why change it?" They are the armor of the status quo. Sure, there's risk in whatever you do in labor relations. But there's also risk in running a business. The clichéd advice, "Better safe than sorry," usually lands the person who follows it on the spot of being sorry and not safe either.

The RAYMOND CORPORATION

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NAME TITLE

COMPANY

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Please send me your new "User's Report" describing the handling of _____ (PRODUCT).

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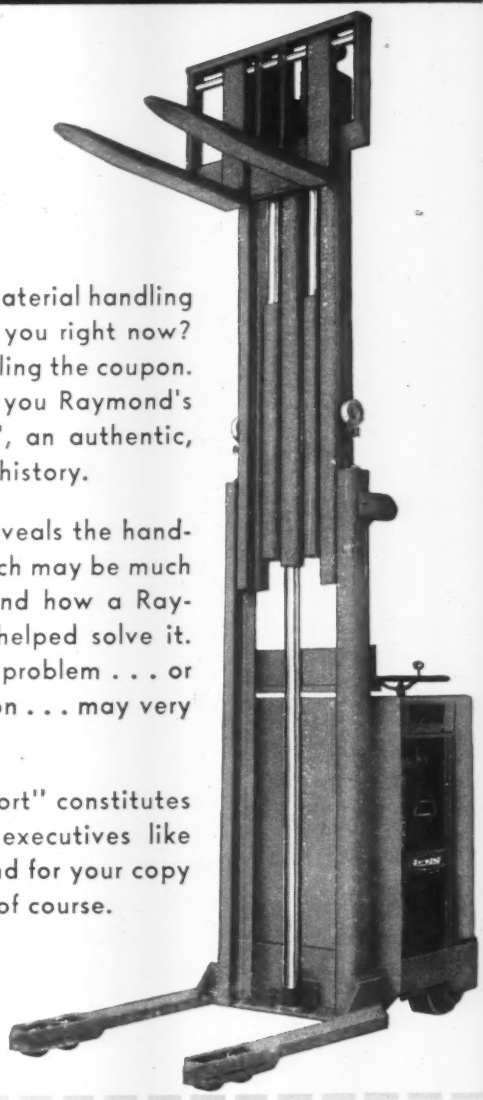
Before you buy another electric truck . . .

HOW HAVE OTHERS SOLVED the material handling problem which faces you right now? You'll find out by mailing the coupon. Because it will bring you Raymond's new "User's Report", an authentic, fully-illustrated case-history.

This concise report reveals the handling of a problem which may be much like your own . . . and how a Raymond Electric Truck helped solve it. The solution to your problem . . . or an idea for its solution . . . may very well be described.

Our new "User's Report" constitutes "must" reading for executives like yourself. Why not send for your copy now? No obligation, of course.

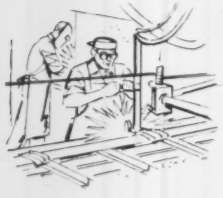


Low Cost MECHANIZED PRODUCTION with *Service*.. INTEGRATED CONVEYOR SYSTEMS

.... from — ***Idea to Finish Installation*** —
Service Can Do the Job Better!

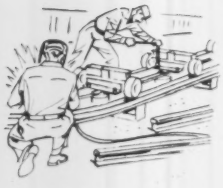
ENGINEERING

Since 1925 *Service* has specialized in Integrated Conveyor Systems. This experience—more than 30 years—in designing production and materials handling conveyor systems, has made *Service* engineering outstanding—an engineering service second to none!



MANUFACTURING

A complete manufacturing department, staffed by skilled mechanics is maintained by *Service* . These specialists build each *Service* Conveyor System under the close supervision of the Engineering Department—and do it more efficiently and on schedule.



INSTALLATION

A *Service* installation crew erects and test runs each *Service* Conveyor System. . . This group of factory specialists work as a team and do the job better—and without costly production delays.

Service Conveyor Systems are *the* recognized standard for DEPENDABILITY and PERFORMANCE. Get the facts from a *Service* engineer. *Write, wire or phone today!*

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NEW WAYS TO CUSHION, PACK, AND SHIP YOUR PRODUCTS

Foamed polystyrene combines high strength and light weight with excellent thermal properties. These Armalite slabs, made by Armstrong Cork Company, can be used for building insulation as well as for refrigerated chambers. Armstrong also offers flexible foamed sheeting and pipe coverings.

New foams: Take your choice for padding, insulation

The rubber and resin industries are really in a lather these days, whipping up new foamed materials that fit a wide variety of product needs. Getting the lion's share of attention are the versatile polyurethane materials (see August 1955, page 64, and December 1955, page 69) now produced by more than a score of companies. But there are many other types that rate consideration.

Foamed vinyl resins, for instance, can be sprayed in place, bonded to plastic films and textiles, and heat-sealed with upholstery-like seams. They're now going into everything from clothing to crash pads.

The urethanes themselves are moving into a thousand-and-one household products, ranging from bath mats to paint rollers—a vastly different arena from the aircraft applications with which they got their start (see November 1953, page 54).

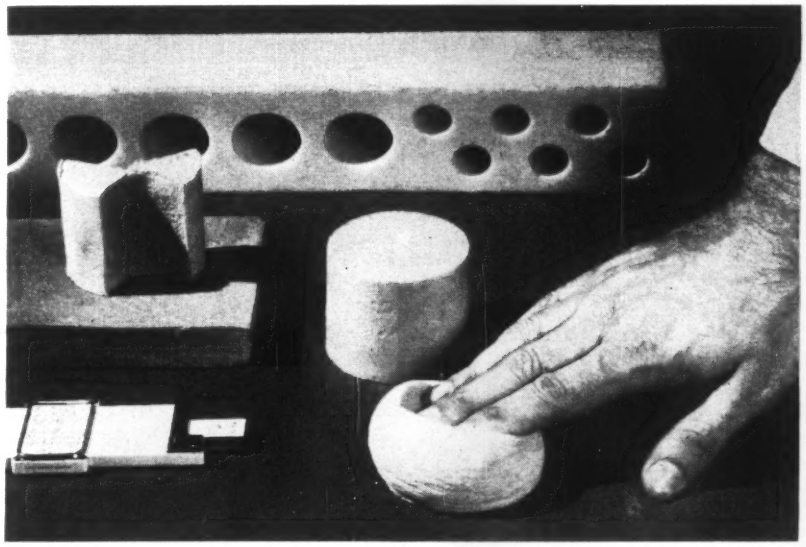
At the threshold of commercial use is foamed polyethylene, now offered by American Agile in extruded rod, sheet, and molded shapes. A rigid, but bendable, closed-cell material, it can be made in densities from 10 to 50 pounds a cubic foot (specific gravity 0.33 to 0.46). It's said to offer excellent electrical, chemical, and low temperature mechanical properties, and may even be able to replace cork in such products as fishing rod handles and bulletin boards.

Also new is soft foamed silicone rubber, being produced by Connecticut Hard Rubber Company in densities from 80 to 138 cubic inches per pound (specific gravity 0.20 to 0.35), in sheets and molded shapes. An open-celled material, CHR's *Cohrfoam* is said to retain its "bounce" at temperatures from minus 100° to plus 480° F., and the company also points out that the new foam retains the excellent weather resistance, stability, and electrical properties of its parent material.

Foamed polystyrene, while not in itself a new material, is now obtainable in several new and interesting forms. St. Regis Paper Company, for instance, is offering containers made of a foam-paper "sandwich" that is "light enough in weight to keep shipping charges low, yet strong enough to withstand long distance shipping, even under high-humidity refrigerator car conditions." St. Regis believes cartons made of this new foamed plastic sandwich can compete with wood in economy and performance.

Blocks and sheets of rigid foamed polystyrene are finding increasing use in house insulation, as well as for trucks (photograph at left), cold chambers, and other refrigeration units. Among the new suppliers of this material are Armstrong Cork Company, Lancaster, Pa., which produces the *Armalite* blocks pictured above, and the recently-formed Dyfoam Corporation of New Castle, Pa.

more news on page 68



Foamed silicone rubber is now obtainable for use in airframe seals, insulation, vibration packing, other severe-service applications. This is Connecticut Hard Rubber's *Cohrfoam.*

27 Styles and sizes to choose from—fully guaranteed. Write today.

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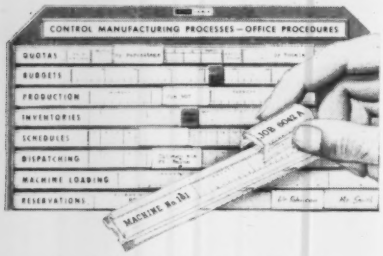
ACME VISIBLE

VISUAL CONTROL PANELS



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Complete flexibility with limitless signalling and charting possibilities . . . Easily adapted to your individual records.

Lightweight panels contain clear plastic tubes which are individually removable and may be shifted from one position to another . . . Clarity of tube provides full legibility of contents.

Ask the man from Acme for examples.

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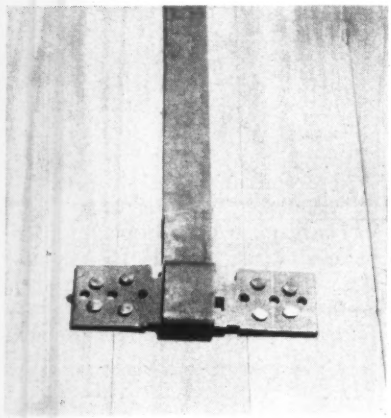
In brief

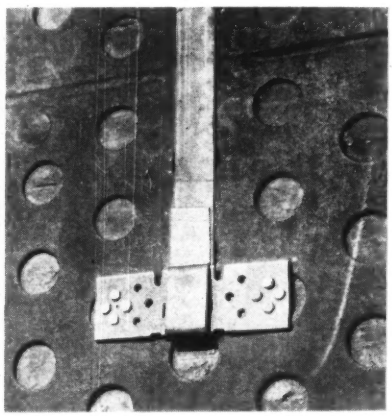
New fasteners: Sintered brass nuts and washers, "lower in cost than those made by any other process, including die casting," are being offered by Midwest Sintered Products Corporation, Chicago 27. Midwest says these new fasteners have a tensile strength of 30,000 to 35,000 p.s.i., and can be held to close tolerances. Several sizes and types of hex nuts are now being made, and the company plans to add wing nuts and cap nuts in the near future.

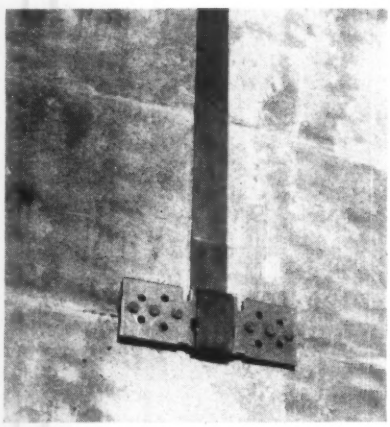
Better finishes: More durable coatings for metal products are promised by Pittsburgh Plate Glass Company's *Duracron* baked enamel finishes. Charles R. Fay, PPG vice president, says these coatings are based on an entirely new series of thermosetting acrylic resins which should have many other industrial applications. The *Duracron* coatings themselves are said to be unusually tough and mar-resistant, and to show exceptional adhesion to metal. "For many applications," Fay reports, *Duracron* finishes "offer, in one coat, the same protection and perfection of finish as present two-coat finishing systems provide."

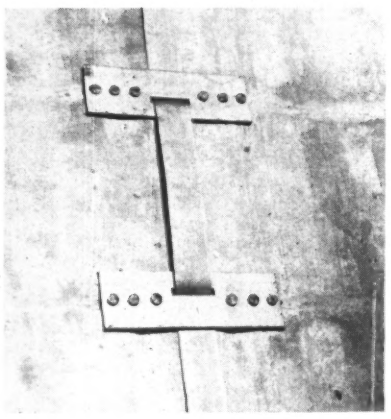
Metal bibliographies: Publications on thorium and stainless steel are surveyed in three new compilations: *Bibliography on the Welding of Stainless Steels* (Welding Research Council Bulletin No. 25. Price: $1), obtainable from the Engineering Foundation, 29 West 39 Street, New York 18; bibliography on *Low Temperature Characteristics of Steels*, prepared by D. & R. Technical Li-

Anchors á la carte







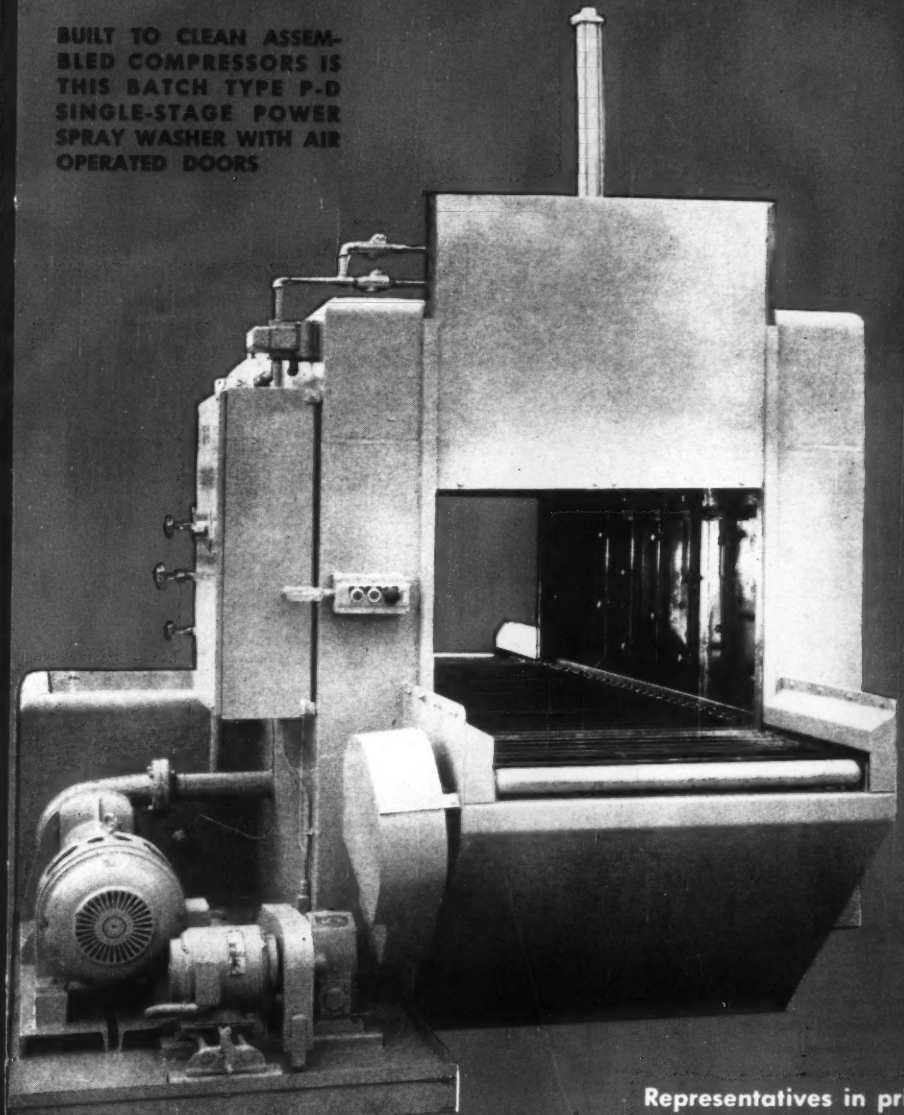


To put rail freight loads in their place—and keep them there—Signode Steel Strapping Company now offers a series of anchor plates for use on wood (upper left), perforated steel, and nailable steel floorings; plus new-model plates (lower right), used on nailable steel flooring as here, to provide a base for controlled floating loads.

KEY to LASTING FINISHES

—Surface Preparation with PETERS-DALTON POWER SPRAY WASHERS

BUILT TO CLEAN ASSEMBLED COMPRESSORS IS THIS BATCH TYPE P-D SINGLE-STAGE POWER SPRAY WASHER WITH AIR OPERATED DOORS



The final finish and appearance of a manufactured product is certainly important to its saleability. When cleaning operations are required, following machining, it is essential for them to be done so that finishes can be applied to parts that have smooth, clean, surfaces—freed of grit and grease.

For more than a quarter century Peters-Dalton has been designing, engineering, building and installing power spray washers, of all sizes and types, for use in American industry. Our engineering department is ready and able to assist you, whether your requirements are for a single-stage unit or for a multiple-stage system. Depend with confidence on P-D. If you can, send us your specifications or layout for the type job required. Just write, wire or phone — we'll be glad to tell you more.

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- Industrial Washing Equipment
- Drying and Baking Ovens
- Hydro-Whirl Dust Collecting Systems

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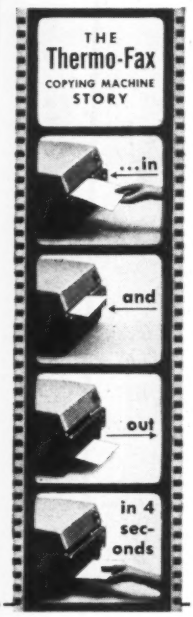

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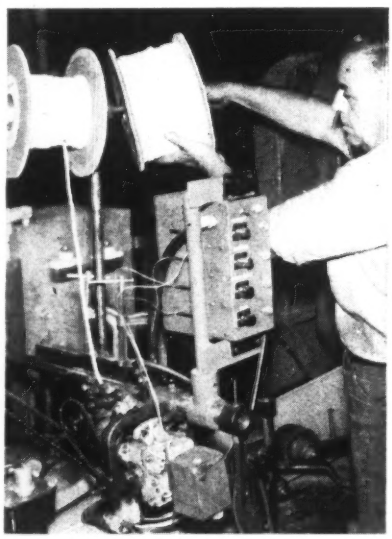
brary, and free from International Nickel Company, 67 Wall Street, New York 5; and *Thorium, a Selective Bibliography, 1951–1955,* priced at $10 and obtained from the librarian of the Crane Company, 4100 South Kedzie Avenue, Chicago 5. Requests should be made, to sources noted, on company letterhead.

Government research news: Contract awards, technical releases, and the like are summarized in a new bimonthly publication, *Data.* It covers a variety of topics—40 or so an issue (16 pages)—and is available on subscription at $12 a year. Publisher: Queensmith Associates, P. O. Box 6026, Arlington 6, Va.

A more detailed and more technical publication is the *Report of NRL Progress.* Issued monthly, it is about 60 pages in length. Prepared by the Naval Research Laboratory, it is available from the Office of Technical Services, Department of Commerce, Washington 25, D. C. Price: $1.25 per copy. Since no subscription lists have been prepared yet, each issue must be ordered separately.

It's coiled to stick



A hot-melt adhesive for packaging and for use by paper and film converters is now being offered in rope-like form by the Industrial Division of United Shoe Machinery Corporation. Advantages of this new *Thermogrip* adhesive system, says United Shoe, are cleanliness, ease of handling, reduction in waste and cleanup time. The simple adapter unit shown here makes it possible to install the new system on almost any packaging or gluing machine.

Lone Star boat travels shipshape in corrugated cartons fastened with Bostitch staples

Huge stapled carton cuts boat packing time 50%

Even in Texas, where you expect things on a grand scale, a corrugated carton big enough to hold a boat is *big*.

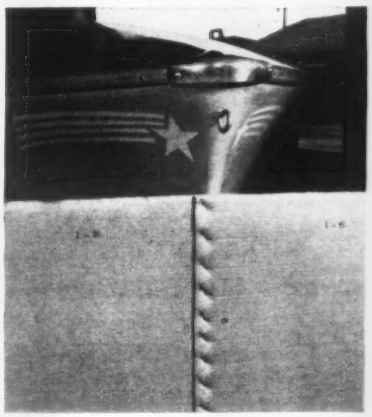
A Texas boat builder wanted to replace heavy wood crates for packaging 14-foot boats. He preferred the smooth surface of paperboard, so the boats' finish wouldn't be marred. But he had to have strength enough to support the boat's ¼-ton weight. Rugged Bostitch staples solved the problem.

The carton — biggest the box manufacturer makes — arrives flat with its center seam already securely stitched with a Bostitch stitcher. Then using Bostitch staples, boat packers form the corners and join the telescoped sections. Finally, corrugated cushions are installed and bottom and top sections stapled together. This is all done in *half* the time needed to nail a wooden crate.

The boat company likes the Texas-size assembly and freight savings of stapled cartons. Dealers like the way stapled cartons protect the boats. Of 3000 shipments, 2998 arrived in perfect condition. The other two were only slightly marred.

Your fastening problem needn't be *this* big for big savings. There are 800 Bostitch models to save time and money in home, factory and office.

A call from you will bring one of 375 Bostitch Economy Men located in 123 cities in the U. S. and Canada, who will be glad to show you how.



Center joint of the huge container has been pre-stitched at the container factory with a fast, automatic Bostitch stitcher

Fasten it better and faster with

BOSTITCH®
STAPLERS AND STAPLES

Look up Bostitch in your phone directory, or write:
Bostitch, 661 Mechanic Street, Westerly, R. I.

☐ Please send me information on ways stapling helps shippers.
☐ Please send free bulletins that show how stapling can cut my costs in other ways.

I want to fasten: ☐ corrugated board ☐ cartons ☐ fabric ☐ leather ☐ plastic bags ☐ wood ☐ roofing ☐ rubber ☐ light metals

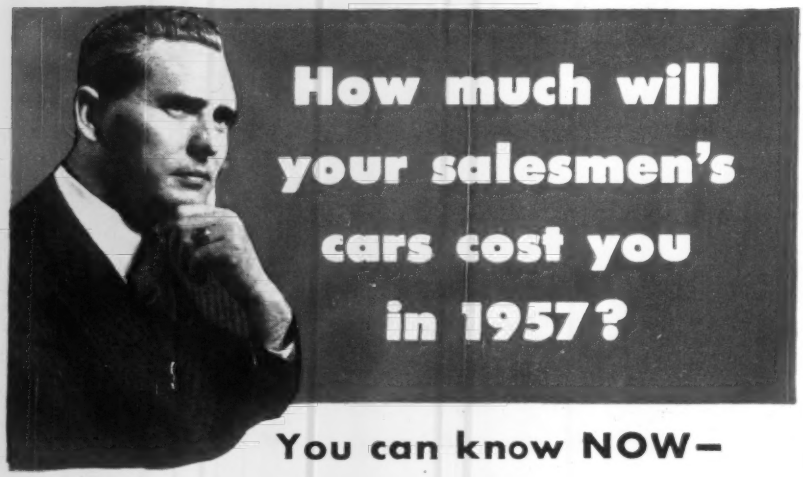
Name _____

Company _____

Address _____

City _____ *Zone* _____ *State* _____

Can You Forecast Within 10%...



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JAPAN . . . *continued*

department stores and a myriad of small retail shops are bulging with a rich variety of merchandise; factories are busy turning out a rising volume of consumer and producer goods; shipbuilding yards are working at feverish levels, with a backlog of orders equivalent to around three years' output. Under a Spartan and politically courageous anti-inflationary program, prices have remained relatively steady for three years.

This amazing postwar recovery, equalled or exceeded, perhaps, only by West Germany among the major industrial nations, has been achieved within the framework of a free enterprise economy, guided by wise governmental policies but not controlled by state edicts; significantly aided by American procurement contracts and by the expenditures of American personnel in Japan, but basically not dependent on those aids. Beneficiary though Japan has been of many wise American policies during the Occupation and subsequent years, she owes her recovery primarily and fundamentally to the energy, skills, and resourcefulness of her people.

Management: One Crucial Resource

Japan's greatest asset is to be found in the skill of her people; and more specifically in her command of the managerial arts. She has the great advantage of skilled and industrious manpower, trained technicians, and a large supply of managers skilled in the administration of both public and private affairs.

It is scarcely possible to overemphasize the importance of this command of the managerial arts. In the modern world of science and technology, mass production and mass markets, management skills are probably the most crucial of all resources. All across the world we hear the complaint that the great deterrent to faster progress in raising living standards is the critical shortage of managers. Many factors account for Japan's position as a bright spot in the world today, but perhaps the root reason is her possession of this resource.

Climate and Population

Let us look at some of the other advantages or assets of the Japanese economy. It has long been the prac-

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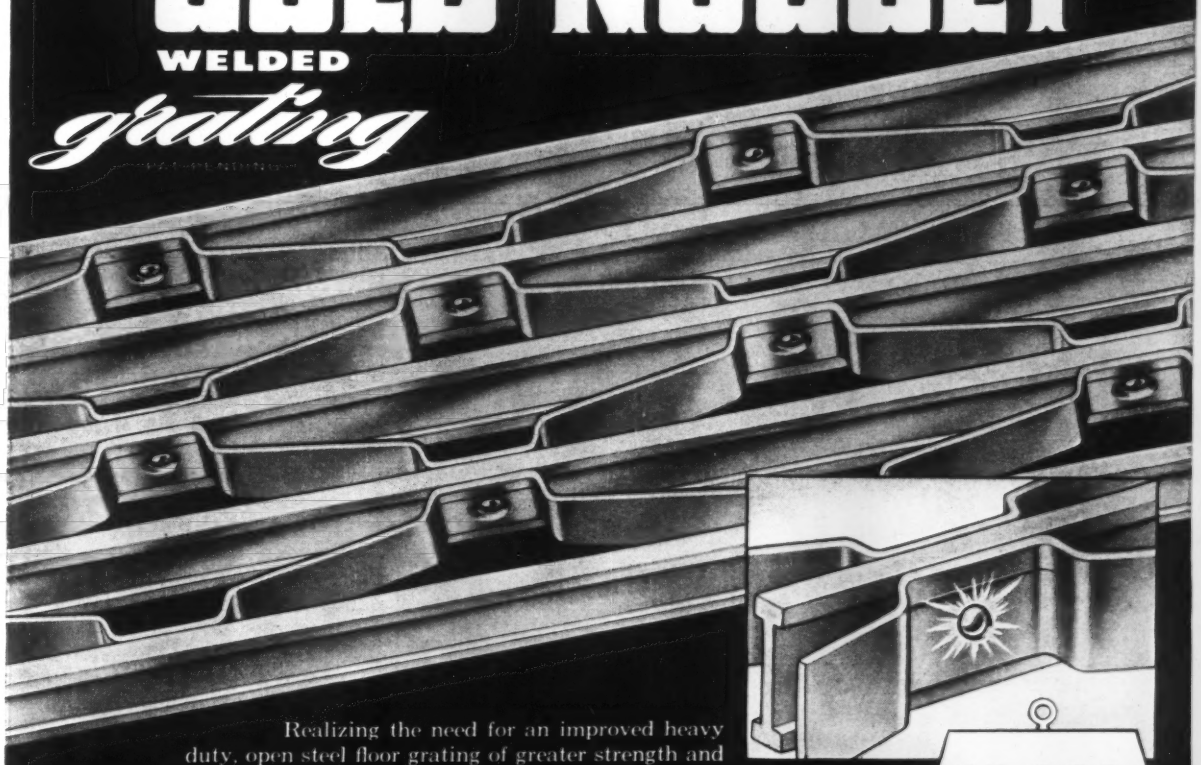
grating



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☐ INADEQUATE DOCK FACILITIES? ☐ TEAM TRACKS?

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tice to think of Japan as a poor country because of her deficiencies in raw materials. Serious though these many deficiencies are, they do not tell the whole story. Japan has many blessings.

One of the greatest of these is her abundant and regular rainfall. It is an axiom around the world that where you find water, there you find life. Japan's teeming millions are there fundamentally because of her abundant and regular rainfall. It is that rainfall that supports intensive agriculture and supplies the enormous quantities of water required for industrial operations and for the generation of power.

The energy and industry of the Japanese people are proverbial. The mainsprings of a national dynamism are always many and complex and difficult to identify or chart; but it seems clear that Japan's temperate and stimulating climate is one of the influences. By and large, and with the usual quota of qualifications, the Japanese climate is beneficent. It is hot and humid in the most populous central and southern areas during much of the Summer—but that's good for the rice, mainstay of the Japanese diet. Over most of the populous area of Japan the Winters are not severe, although Japanese houses, designed for Summer comfort, are proverbially chilly and uncomfortable in Winter.

The problem-conscious observer of Japan will note that she cannot feed her population. But, is it not a more balanced view to note that Japanese agriculture and fisheries satisfy from 80 to 85 per cent of Japan's food needs? Not a bad record for an industrial nation. Moreover, highly processed manufactured goods exchange very favorably in world markets with wheat and rice and soybeans and sugar and such like.

Japan's 90 million people live primarily in the river valleys and coastal plains, in about 20 per cent of her total area, which itself is only 90 per cent as large as California. Perhaps a more meaningful comparison is to say that the Japanese islands comprise an area just a little larger than the combined area of the six contiguous states of New York, New Jersey, Pennsylvania, Delaware, Maryland, and West Virginia, but have a population 2.4 times the combined population of those six states. The density of population—people per

square mile—in Japan is about 2.3 times that of the six states combined but slightly less than twice that of New York State and actually less than that of New Jersey. Yes, New Jersey has about 680 people per square mile (July, 1955); Japan, about 630.

Japan's population density is less than that of Belgium (749) and of the Netherlands (849) and not much greater than that of Western Germany (523) and of the United Kingdom (542). New York City's population density is roughly 25,000 per square mile against Tokyo's approximate 10,000.

It may be countered that the most significant comparison is in terms of population per arable square mile. But non-arable areas also support population and economic activity; besides, there are great differences among nations and within nations in the extent of exploitation of land. And for any nation there are differences over time.

Japan's exploited land area will be increased to some extent by irrigation and reclamation and to a much greater extent, ultimately, by roads penetrating her mountainous regions. Strange as it may seem, her mountainous areas are little occupied, compared with the mountainous areas of Western Europe. And Japan's northernmost island, Hokkaido, has only about 142 people per square mile, or less population density than Illinois. The Japanese people have shown considerable resistance to settlement in that colder climate.

To indicate roughly the climatic range and northeast-southwest expanse, it may be noted that if the Japanese islands were superimposed on the map of North America, they would extend from Montreal almost to Pensacola.

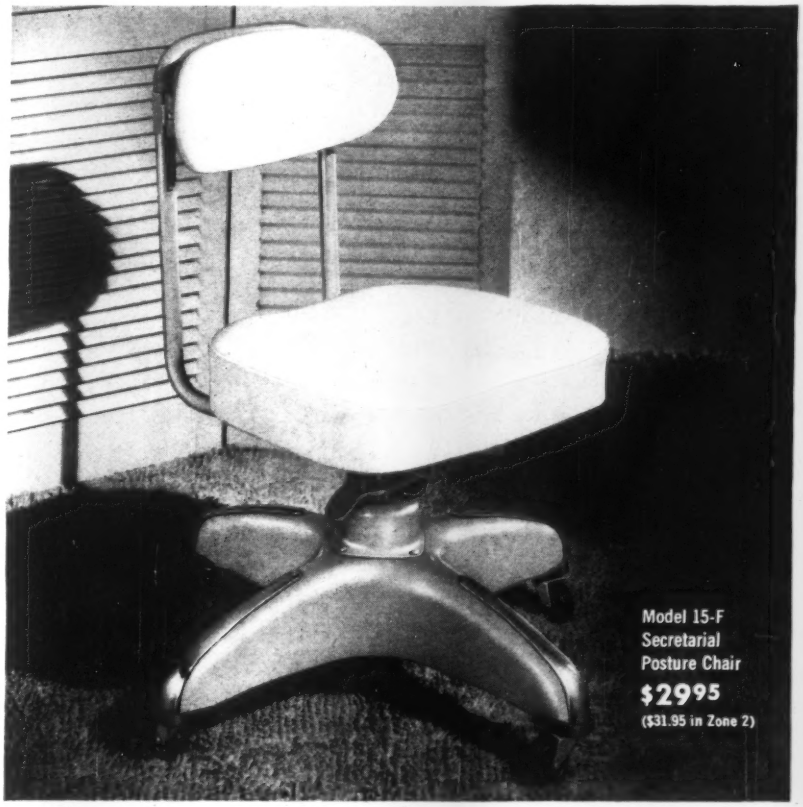
Materials and Power

The typical vision of Japan is one of crowded cities and narrow rice paddies. But not far away from the cities and flood plains are heavily wooded mountainous areas, and Japan rates among the major timber-producing nations of the world, although she falls a little short of meeting all her requirements. She is a heavy exporter of veneer and plywood, but this industry is based primarily on imported hardwoods, mostly from the Philippines.

Nearly all of Japan's building ma-

"Office fashioned"

TO LOOK BETTER, FEEL BETTER, WEAR BETTER!



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You'll raise her output, and her morale, with this smart, adjustable chair by Cosco! All Cosco chairs are "Office fashioned"—designed by seating engineers and mass-produced by skilled craftsmen, to look better, feel better and wear better than other chairs costing twice as much. Your Cosco dealer is ready to prove this, with a free ten-day trial. Call now!

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Also available in Canada, Alaska and Hawaii through authorized COSCO dealers.

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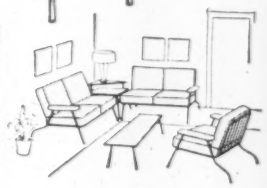
Model 18-TA
Executive
Posture Chair
$49.95
($52.45 in Zone 2)

Model 23-L
General Chair
$15.95
($17.95 in Zone 2)



COSCO Business Furniture offers comparable values in chairs, settees, sofas, and occasional tables.
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terials are supplied by her own industry. Coal deposits are extensive, and her coal mines meet domestic needs apart from the need for coking coals. Japan imports from a fourth to a third of her coking coal requirements, blending the high-grade foreign coals with her own; but progress in coal research and technology promises to reduce significantly this degree of dependence.

Of installed electric generating capacity in Japan, hydro plants have accounted for around 63 per cent; but those hydro plants have generated 75 to 80 per cent or more of the electricity produced. Here again we see a reflection of the abundant and regular rainfall of Japan—which permits dependence on hydro plants for the great bulk of base-load firm power. Extensive exploitation of her remaining economic hydro potential is in prospect over the next five years or so.

It is the fashion to emphasize Japan's high degree of dependence on imported raw materials, and an impressive list of such materials can be compiled. For example, she must import 100 per cent of her rubber and phosphate and almost 100 per cent of her cotton and wool, 95 per cent of her crude oil, upwards of 80 per cent of her iron ore, and even 80 per cent of her salt. On the other hand, she produces a significant percentage of her needs for many raw materials, including besides the already mentioned coal and timber and other building materials such items as copper, lead, zinc, and chemicals. Sulfur and sulfide ores she has in abundance. She has producing oil fields and natural gas fields, even if their output meets only a small part of her needs. Her potentials in these energy sources do not appear to be large, but favorable conditions are known to exist over large parts

of Japan and geophysical exploration by modern methods still largely remains to be done.

Despite the relative smallness of the country and the density of population, the extent of geological and geophysical exploration is not great. The rugged mountains offer promise of much more mineral wealth than has been uncovered so far, and it is conceivable that significant new discoveries may be made over the years ahead. As an indication, more extensive natural gas reserves have been found; and the past four or five years have seen the development of a brand-new titanium industry, small as metal industries go but ranking in output next to the U. S. and exporting most of its product. There is even prospecting for uranium.

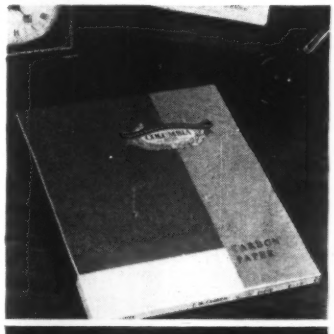
In the aggregate, according to the United Nations Economic Commission for Asia and the Far East, Japan produces, on the average, about 60 per cent of the raw materials for her industries, about 80 per cent of her food grains, and almost 90 per cent of her articles for personal consumption. Some conspicuous European economies produce much lower percentages of their needs.

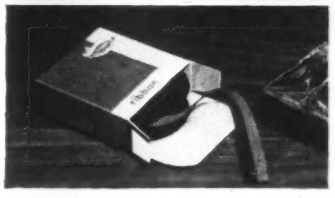
The lack of raw materials has not barred great economic development in other industrial nations, such as the United Kingdom, Germany, Belgium, Holland, and Switzerland; and our own list of imported raw materials is both extensive and growing. Our present dependence on raw material imports is around 10 per cent and is expected to double by 1975, according to Paley Commission studies. And highly fabricated manufactured products exchange very favorably with raw materials in the world's markets. To cite just one example, a quality camera weighing a couple of pounds or so may exchange for six or seven tons of crude petroleum. As between the blessings of raw materials on the one hand and the advantages of a population of skilled artisans, technicians, and managers on the other hand, who can doubt how the scales would tip?

GNP: $24 Billion

Lest what has been said convey a false impression of the relative strength of the Japanese economy, it must be pointed out that the value of all the goods and services produced in 1956 will probably not exceed the equivalent of around $24

Appearance Always Counts





Whether you're typing business letters on land, sea or even in the air (yes, Virginia, there are flying carpets), the impression they create has to be the right one. That's why discerning secretaries *everywhere* depend upon Columbia Ribbons and Carbons to give that special note of correctness to their office correspondence. Columbia Ribbon and Carbon Manufacturing Co., Inc., Glen Cove, N. Y.

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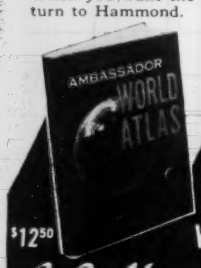

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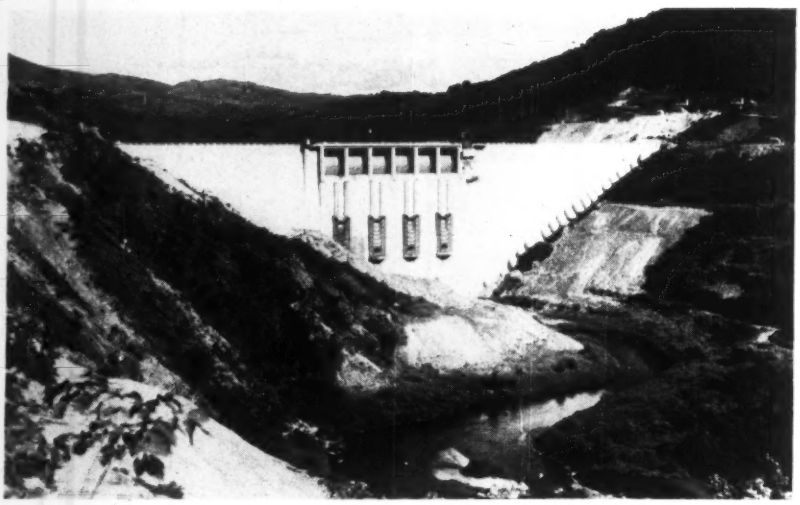

Photograph from Japanese Embassy

Abundant rain and plentiful water not only serve the agricultural needs of the nation, but also provide much of the power that is necessary to move Japan's wheels of industry.

billion, in contrast with output of about $411 billion for the American economy, or around seventeen times the Japanese total. If these two gross national product estimates for 1956 are put on a per capita basis, U. S. output is still nine times that of Japan. The Japanese economy is a dynamic, growing, free economy, the richest in all of Asia and one that holds great promise for the Japanese people and for the Free World in general. But it still has a long, long way to go.

The Unemployment Problem

The United Nations' Economic Commission for Asia and the Far East has noted in its 1956 reports that the two long-range special problems of the Japanese economy are: (1) dependence on imports of food and raw materials; (2) the need to find employment for an ever-increasing labor force.

Enough has been said here to make it clear that the first of these problems is inherently soluble. Given a world of peace, it places no insurmountable barrier in the way of advancing standards of well-being for the people of Japan. The second problem is a more difficult one, but it, too, may be solved.

Japan's population is increasing by more than a million a year, and the labor force (currently and for the next few years) is growing much more rapidly than total population, or by about 700,000 persons a year. In the United States, the prospect is just the other way around—total population will grow much faster than the labor force over the next several years. Differences of this sort stem, of course, from differing age compositions of the two populations. They will iron out in a decade or so, but in the meantime they pose real economic problems: a tight labor market in the U. S. and serious unemployment or underemployment in Japan.

Japan's employment problem is not at all accurately reflected in her unemployment figure, which runs around 600,000—a seemingly very low total for a labor force of about 40 million. What is the explanation? Agriculture accounts for about 40 per cent of the gainfully employed, and shows a marked capacity to absorb workers in times of low business activity and to supply them for urban industries when demand for labor is high. Those who lose jobs in industry tend to go back to the rice paddies, to the ancestral farm or retail shop. There are obvious advantages in terms of personal security from want in such a culture pattern. Clarity of perspective, however, requires that we recognize that this means overstaffing or inefficient use of manpower on farms or in village shops—merely disguised unemployment. Japanese Government officials, leaders of industry, and economists recognize the problem; and the Self-Support Five-Year Economic Plan aims at progress toward a solution.

The Japanese economy is a free

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Head Office, Montreal

JAMES MUIR
Chairman and President
K. M. SEDGEWICK
General Manager
A. F. MAYNE
Associate General Manager
(non-domestic business)

Condensed Annual Statement

as on 30th November, 1956

ASSETS

Cash on hand and due from banks (including items in transit)	$ 585,749,787
Government of Canada and provincial government securities, not exceeding market value	715,005,707
Other securities, not exceeding market value	492,218,188
Call loans, fully secured	165,289,376
Total quick assets	$1,958,263,058
Other loans and discounts	1,295,093,026
Mortgages and hypothecs insured under N.H.A. (1954)	186,200,416
Bank premises	30,690,073
Liabilities of customers under acceptances, guarantees and letters of credit	93,174,380
Other assets	7,877,367
	$3,571,298,320

LIABILITIES

Deposits	$3,278,375,435
Acceptances, guarantees and letters of credit	93,174,380
Other liabilities	13,046,872
Total liabilities to the public	$3,384,596,687
Capital paid up	50,298,893
Rest Account	135,737,122
Undivided profits	665,618
	$3,571,298,320

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enterprise economy, but it is not a *laissez faire*, or devil-take-the-hindmost, economy. There is an Economic Planning Board, and there is the Self-Support Five-Year Plan with a series of goals or objectives for 1961. The planning, however, does not extend to detailed state direction. Rather, it relies on indirect methods, including banking system controls and pressures, allocation of foreign exchange, dissemination of information on needs and objectives, and persuasion. The Economic Planning Board establishes goals for the economy through the procedures of a democratic society (the director general is a member of the Cabinet, as Minister of State), publishes reports on these goals, and calls attention to deficiencies and to investment needs. The Bank of Japan, a Governmental institution, exercises potent control over the banking system through supervision of loan requirements as well as through its general influence. In summary, we may say that the Japanese economy is subject to Governmental guidance and some indirect controls, but fundamentally it is a free enterprise economy.

A dominant characteristic of Japanese business men is their pragmatic approach to business problems. And this same attitude of mind, a willingness to experiment and a disposition to look at the workability of an idea or proposal rather than to judge it in terms of conformity to or departure from a rule book, has characterized also the Japanese Government's relation to business in recent years. Major reliance has been placed on the free enterprise system, but the Japanese have not hesitated to resort to special measures in fields in which competitive enterprise produced undesirable results. For example, the sickness of the coal industry led to a coal rationalization law that permits the Government to restrict coal output and the opening of new pits and to encourage the merger of mining companies. A more recent law, effective October, 1956, authorizes the Government to restrict the productive capacity of the textile industries.

Export Policy

The Japanese have taken a realistic attitude toward the outlook for the cotton textiles segment of their economy. They do not see prospects of long-term growth in that industry, what with tariff walls, quotas, and

growing competition from many countries. (Even little Taiwan is in search of markets, production of cotton textiles there having increased beyond the needs of its 10 million people.) Rather, special emphasis has been placed by the Economic Planning Board on the metallurgical, machinery, and chemical industries. These are growth industries in Japan, as elsewhere; and it is on their export potentialities that the Japanese economy is counting heavily.

The same pragmatic attitude is seen in the recent moves to apply voluntary restrictions on exports by Japanese textile and apparel industries. It became apparent in early 1956 that the export practices followed by some elements of the textile and apparel industries were disrupting markets and creating resentments that would inevitably lead to restrictive measures. It was equally clear that "taking a flyer" in the American market, or "crashing" the market, would not serve the best long-term interests of either country—would not enable the Japanese producer to establish a lasting position in the American market.

The whole laudable program of the Japanese economy was one of building up exports to pay for essential imports that Japan might become self-supporting, might stand on her own feet. In the atmosphere of that drive, the offers of bargain-hunting American business buyers were in many instances too tempting; and much disorderly marketing and disruption of markets took place. Both the Japanese Government and Japanese business men, once the facts became clear, approached the problem in a pragmatic way—they offered to restrict their exports of apparel and textiles, in total and by types, to stated levels and to avoid concentration of marketings over a short season.

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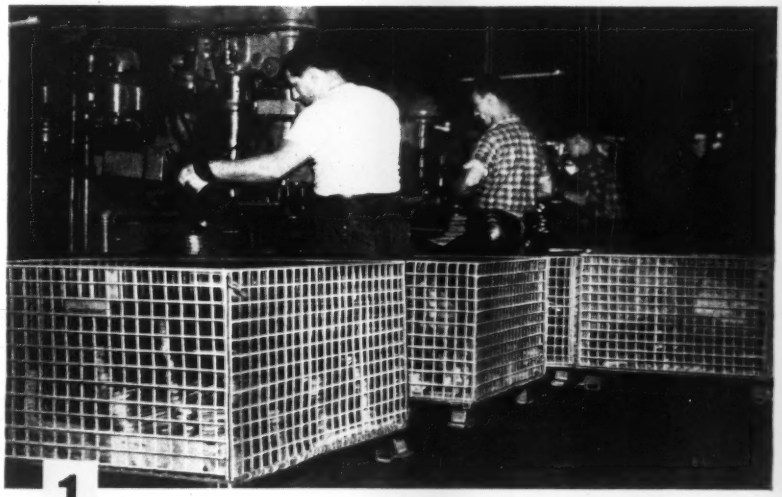

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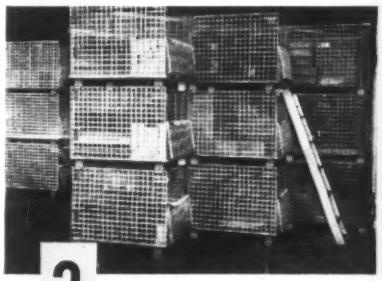

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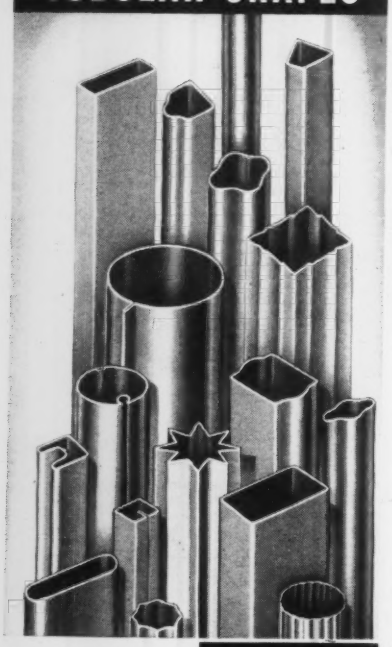

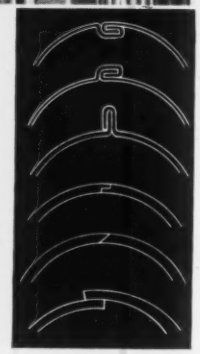

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er quality, in contrast to the earlier practice of mass-producing low-cost and low-quality consumer goods.

For example, the silk spinning industry has organized a guild whose primary purpose is to police quality of goods for export. This action was taken voluntarily, but with Government blessing, and officials are trying to encourage similar programs.

Another example of the new emphasis is found in the attractive and permanent Japan Trade Fairs in New York, San Francisco, and Toronto, which stress quality rather than low cost. Japanese industry has also seized eagerly on modern quality control techniques, and is applying them successfully.

American business men will find their counterparts in Japan able and tough in serving their own interests as they see them but pragmatic and reasonable. They understand that lasting trade must serve a mutuality of interests.

To judge from news reports, the uninformed reader might conclude that Japanese exports consist entirely of cotton textiles and apparel and that all such exports are directed to the United States. Actually, Japan's exports reflect the wide and diversified range of her industry and the world-wide commercial relationships befitting a maritime nation.

Last year's Japanese exports of a little over $2 billion in value went to all continents. The United States, as Japan's best single customer, took 22 per cent; North America as a whole, 26.5 per cent. But East and South Asia took 40 per cent. Europe took 10 per cent; Africa, 9.5 per cent; South America, about 7 per cent; Oceania, a little under 4 per cent; and the Near East, about 2 per cent.

It is an indication of the growing strength of the Japanese economy that both iron and steel exports and machinery exports exceeded in value the exports of cotton yarn and fabrics; that exports of pharmaceuticals and chemicals were close behind exports of clothing—and will undoubtedly soon surpass clothing.

The wide range of Japan's exports is shown in Table I, page 84.

Japan's imports are dominated by raw materials (61 per cent) and staple foodstuffs (16 per cent), as shown by Table II. Raw cotton, mostly from the United States, petroleum, and wool rank highest among raw material imports.

Comparison of Tables I and II reveals interesting relationships. Japan's imports of foods and beverages ($625 million) were partially offset by food and beverage exports (mostly canned fish, shellfish, and tea) amounting to $136 million. Her imports of staple foodstuffs (mostly rice, bread grains, sugar, and soya beans) were almost paid for by metal and metal products exports. Her exports of machinery more than covered the cost of her petroleum imports.

Japan's exports of cotton yarn, cotton fabrics, and all types of clothing fell short of covering the cost of her raw cotton imports. For the entire field of cotton, wool, and rayon, how-

Photograph from Japanese Embassy

High hopes are held for an expansion of Japan's extractive industries. These include oil and oil products, which have always fallen short of her civilian and industrial needs.

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Photograph from Japanese Foreign Ministry

Trade and transportation are twin keys to a dynamic economy, and the Central Railway Station in Tokyo, as a doorway to markets, is an element in the economic picture.

ever, exports of yarn, fabrics, and clothing ($683 million) considerably exceeded the cost of imports of wool, raw cotton, and rayon pulp ($563 million). Exports of the wholly indigenous raw silk and silk fabrics added $66 million more. And besides, those imports had to meet the clothing needs of Japan's large population.

It can be seen that Japan's merchandise exports of about $2 billion run to about 8 or 9 per cent of her gross national product. Our merchandise exports are around 7 or 8 times larger in value, but amount to only about 4 per cent of our gross national product. The comparison suggests Japan's dependence on exports, although it does not begin to measure the degree of that dependence. In truth, the heart of the whole case for a workable Japanese economy must rest on growing exports. This is the way she must pay for her essential imports. It is the process through which she can gainfully employ her growing labor force and create the wealth to sustain a rising standard of living for her people.

TABLE I
Distribution of Japan's Exports, 1955
(In Millions of U.S. Dollars)

	Amount	%
Fibers and Products	749	37.3
Cotton fabrics	230	11.4
Clothing	107	5.3
Rayon staple fabrics	82	4.1
Rayon fabrics	61	3.0
Raw silk	50	2.5
Cotton yarn	24	1.2
Silk fabrics	16	0.8
Rayon staple yarn	16	0.8
Rayon filament yarn	9	0.4
Metals and Products	386	19.2
Iron and steel	259	12.9
Nonferrous metals	66	3.3
Metal products	61	3.0
Machinery	247	12.3
Ships	78	3.9
Sewing machines	35	1.7
Textile machinery and parts	27	1.3
Foodstuffs and Beverages	136	6.8
Fish and shellfish	76	3.8
Tea	8	0.5
Pharmaceuticals and Chemicals	94	4.7
Chemical fertilizers	42	2.1
Non-metallic Mineral Products	85	4.2
Ceramic ware	42	2.1
Cement	22	1.1
Others	314	15.5
Toys	42	2.1
Lumber	29	1.4
TOTAL	$2,011	100.0

TABLE II
Distribution of Japan's Imports, 1955
(In Millions of U.S. Dollars)

	Amount	%
Industrial Raw Materials	1,515	61.0
Raw cotton	383	15.5
Petroleum	227	9.2
Wool	164	6.6
Soya beans	98	4.0
Iron ore	81	3.3
Crude rubber	66	2.7
Scrap iron and steel	64	2.6
Lumber	62	2.5
Coal	56	2.3
Phosphate rock	34	1.4
Potassic salt	32	1.3
Salt	22	0.9
Raw hides and skins	22	0.9
Rayon pulp	16	0.7
Foodstuffs and beverages	625	25.4
Staple foodstuffs	404	16.4
Others	331	13.6
Machinery	132	5.5
Pharmaceuticals, chemicals	80	3.2
TOTAL	$2,471	100.0

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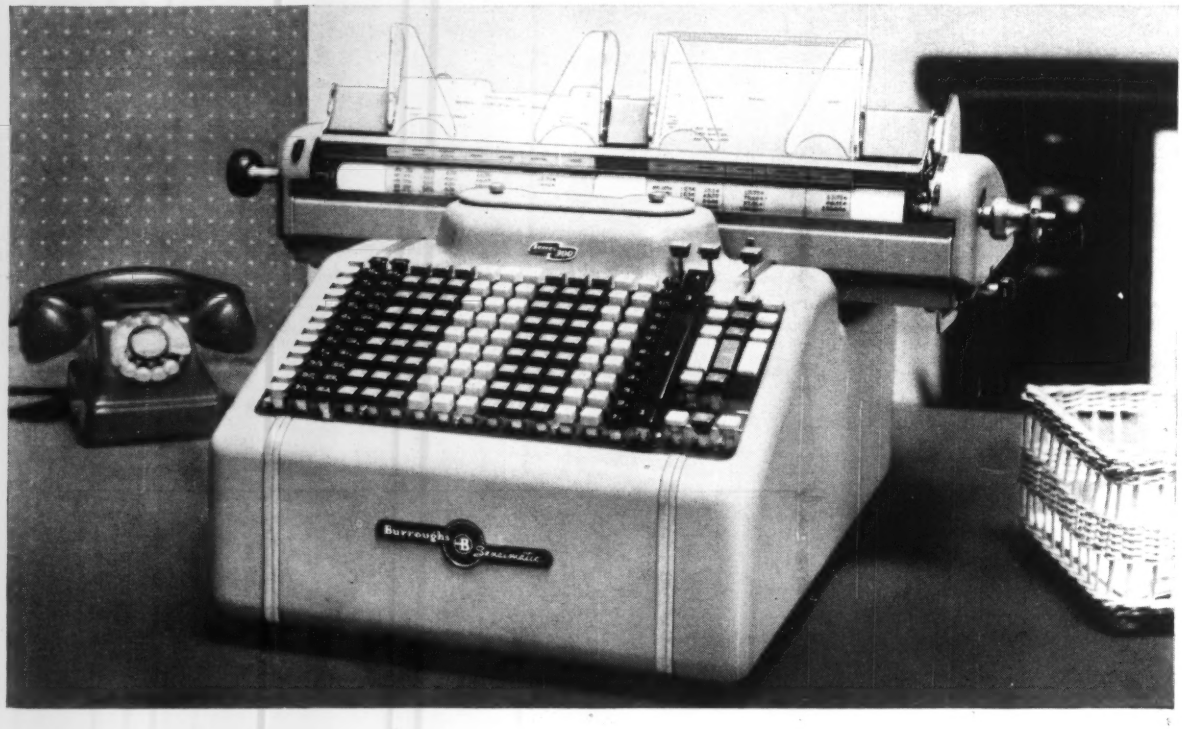

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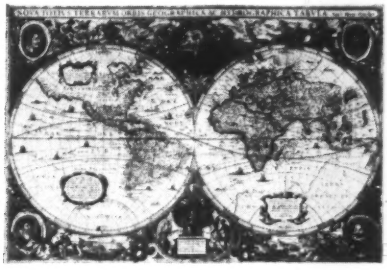

ALEXANDER O. STANLEY, *Editor*
MARION L. WEAVER, *Staff Assistant*

1957 INTERNATIONAL BUSINESS EXPECTATIONS

Reported from 59 Countries

Latin America in limelight as favorable trade balance rises.
Here are chief indicators to watch in this and other areas,
plus forecasts from Dun & Bradstreet outposts around the world.

THE IMMEDIATE months ahead are expected to show powerful cross-currents in international trade, with the epicenter of economic problems in the Suez. That's the consensus of reports filed by the 59 branch managers and key correspondents of the Dun & Bradstreet international division, in the sixth annual forecast of overseas business expectations.

In a capsule, the 1957 outlook is gloomy in the Middle East; guardedly optimistic in Europe, the Far East, and Oceania; encouraging in most of Latin America and the two reporting countries in Africa. The reports were prepared after the military action broke out in the Suez.

In filing their forecasts, almost all the respondents injected the caution, "does not apply in the event of full-scale war in the Middle East." As this analysis is being prepared, military and political tensions are easing, but economic repercussions are dominating the scene. Heavily dependent on the Middle East for oil, Europe is already beginning to feel the pinch. At best it is hoped that, once the current emergency program goes into high gear, the oil deficiency will be held to 12 to 15 per cent of the 2.8 million barrels needed daily. But nagging in the background are such tough questions as: "How much dollar exchange will be diverted from normal channels of trade?" "What will be the impact on tourist trade, which supplies so much to the livelihood of so many countries in Europe?" and finally, "To what degree will plant operation, and concomitantly employment, be adversely affected by lack of oil for industrial power?"

Scope of the Survey

These are the imponderables in making any projection for 1957. But time tempers crises. International trade follows an intricate pattern, exposed as it is to complicated maneuvers and highly susceptible to changes. Ingrained in the whole system of world trade is a toughness and adaptability that produces dynamic results under formidable handicaps. So it is not surprising that, while the Suez situation is recognized as a danger, a strong undercurrent of optimism runs through the predictions.

The 59 markets participating in this study account for 83 per cent of U.S. exports; provide 80 per cent of U.S. imports. In global trade this group accounts for 76 per cent of world sales; 71 of purchases.

A precise computation of figures on an area basis would be of limited value since countries, like individuals, have particular problems and are seeking particular solutions. Some want more industry, others more markets for the products of their farms or mines. Others worry about their currency balances, or internal inflation, or the climbing interest rate on loans. But of some value to 1957 programming are these area highlights:

1. More than half the countries reviewed expect to buy more in the United States in 1957. Exception: Latin America, where only three of 26 countries forecast higher imports. Thirteen anticipated holding at the 1956 levels (large enough in view of the all-time high that was set last year).

2. More than half expect to make larger purchases in world markets—notably in Europe—during 1957. Exception: the Middle East, which anticipates buying less than in 1956, as reported by four of the six respondents in the area.

3. More than half the markets hope to expand exports of their products to the United States. This news

is particularly significant when placed against estimates of all-time high U.S. purchases in world markets.

4. More than half expect to export more products to overseas markets. Only five countries report lower than 1956 export expectations.

5. More than half report a strengthening or strong dollar reserve situation in the wake of sharply expanded U.S. imports and despite high-level U.S. exports. Item: Latin America, where increasing dollar funds are reported in fifteen of 26 countries. This is the only area where the interchange of trade produced a surplus of dollars in 1955 ($272 million) and in 1956 (first eight months' trade balance is $248 million). Exception: the Far East, where only one country—Japan—of fifteen reviewed reported an improving dollar position. Ten areas reported dollars were at a premium; four said their dollar reserves were "weakening."

6. More than two-thirds indicated local sales will be "good" in 1957. Exception: the Middle and Far East, where two-thirds of the respondents looked for a downward adjustment in retail sales in 1957.

7. "Adequately stocked" is the answer from two-thirds of the markets. Overstocked shelves were mentioned by six Latin American respondents, two in Europe, two in the Middle East. Thin inventories were listed for three Latin American markets, two European markets, one in the Middle East, four in the Far East.

8. Credit conditions and collections were almost universally labelled "fair." A good credit and collection picture was seen in five Latin America, two European, one Middle East, four Far Eastern areas. Six of the twenty-six Latin American countries termed the credit-collection situation poor.

9. Optimism prevailed throughout the industrial ranks. Almost two-thirds of the countries said 1957 industrial activity would exceed that of 1956 by small to high margins. Note: Seven of eight European countries expected higher-level production this year!

Evaluating Markets for 1957

The opinions detailed in Table I yield important clues to the overseas business barometer—whether the drift will be toward expansion or contraction.

To American export management

TABLE I: How Foreign Markets Forecast 1957

	Total Market Factor	A Imports from U.S.	B Imports from Other Countries	C Exports to U.S.*	D Exports to Other Countries	E Current Dollar Situation	F Forecast of Local Sales	G Current Inventories	H Wholesale Credits and Collections	I Local Industrial Activity
EUROPE										
Canada	23	• • •	• • •	• • •	• • •	• • •	• •	• •	• • •	•
Puerto Rico	25	• • •	• • •	• • •	• • •	• • •	• • •	• •	• •	• • •
LATIN AMERICA & WEST INDIES										
Argentina	19	• •	• •	• •	• •	• •	• •	• •	• •	• • •
Brazil	22	• •	• • •	• • •	• • •	•	• • •	• •	• •	• • •
British Guiana	24	• • •	• • •	• • •	• • •	• • •	• • •	•	• •	• • •
Bermuda, B.W.I.	21	• •	• •	• •	• •	• • •	• • •	• •	• • •	• •
Jamaica, B.W.I.	22	• • •	• • •	• • •	• • •	• • •	•	• •	•	• • •
Leeward & Windward Is.										
Antigua	18	• •	• • •	• •	• • •	• •	• • •	•	• •	—
Grand Cayman	22	• • •	• • •	• •	• •	• •	• • •	• •	• •	• • •
Grenada	14	• • •	•	•	•	• •	• •	• •	• •	—
St. Kitts	21	• • •	• • •	• •	• • •	• •	• • •	•	•	• • •
Colombia	16	•	•	• •	• • •	•	•	•	• • •	• • •
Costa Rica	19	• •	• •	• • •	• • •	• •	• • •	• •	• •	—
Cuba	24	• •	• • •	• • •	• • •	• • •	• • •	• •	• •	• • •
Dominican Republic	19	• •	• •	• • •	• • •	• •	• • •	• •	• • •	—
Ecuador	23	• •	• •	• • •	• • •	• • •	• •	• • •	• •	• • •
El Salvador	15	•	• • •	• •	• •	• • •	•	•	• •	—
French West Indies	21	• • •	• • •	• • •	• •	• •	• • •	• •	• • •	—
Guatemala	23	•	• •	• • •	• • •	• • •	• • •	• •	• • •	• • •
Honduras	20	• •	• • •	• •	• •	• • •	• • •	• • •	• •	—
Mexico	23	• • •	• • •	• •	• •	• • •	• • •	• •	• •	• • •
Netherlands Antilles (W.I.)	20	• •	• •	• •	• •	• • •	• • •	• •	• •	• •
Nicaragua	16	• •	• •	•	•	•	• • •	• •	• •	• •
Panama	21	• • •	• •	• • •	• •	• • •	• • •	•	• •	• •
Peru	24	• • •	• • •	• • •	• • •	• • •	• • •	• •	• •	• •
Surinam	21	• •	• • •	• • •	• • •	• • •	• • •	• •	• •	—
Uruguay	17	• •	• •	• •	• •	• • •	—	• • •	• •	•
Venezuela	25	• • •	• • •	• • •	• • •	• • •	• • •	• •	• •	• • •
WESTERN EUROPE										
France	21	• • •	• • •	• •	• •	• •	• • •	•	• • •	• • •
West Germany	26	• • •	• • •	• • •	• • •	• • •	• • •	• • •	• •	• • •
Greece	22	•	• • •	• • •	• • •	• • •	• • •	•	• •	• • •
Italy	25	• • •	• • •	• • •	• • •	• • •	• • •	• •	• •	• • •
Netherlands	21	•	• •	• • •	• • •	• •	• • •	• •	• • •	• • •
Norway	23	• • •	• • •	• • •	• • •	• •	• • •	• •	•	• • •
Switzerland	16	• • •	•	•	•	• •	•	• • •	• •	• •
United Kingdom	22	• •	• •	• • •	• • •	• • •	• • •	• •	•	• •
MIDDLE EAST										
Iran	19	• • •	• • •	• •	• • •	• • •	• • •	•	•	—
Israel	26	• • •	• • •	• • •	• • •	• • •	• • •	• •	• • •	• • •
Kuwait	10	•	•	•	•	•	•	•	• •	•
Lebanon	14	• •	•	•	•	• •	• •	• •	•	• •
Saudi Arabia	13	• • •	•	—	—	• •	• • •	• •	• •	—
Turkey	21	• •	•	• • •	• • •	• • •	•	• • •	• •	• • •
FAR EAST & OCEANIA										
Afghanistan	22	• • •	• •	• • •	• •	• •	• •	• •	• • •	• • •
Australia	14	•	•	•	•	• •	• •	• •	• •	• •
British Malaya	21	• •	• •	• • •	• •	• •	• • •	• •	• •	• • •
Burma	20	• •	• • •	• •	• •	• •	• •	• • •	• •	—
Ceylon	17	• •	• • •	• •	• •	• •	•	• •	•	•
Hong Kong	19	• •	• •	• • •	• •	• •	• • •	• •	• •	•
India	23	• • •	• • •	• • •	• •	• •	• •	• •	• •	• • •
Indonesia	15	• •	• •	•	•	•	•	• • •	•	• • •
Japan	23	• • •	• • •	• •	• •	• •	• • •	• •	• •	• • •
Korea	22	• • •	• • •	• • •	• • •	•	• •	• • •	•	• • •
Pakistan	21	• • •	• •	• • •	• • •	• • •	•	• • •	•	• • •
Philippines	20	• •	• • •	• •	• •	• •	• •	• •	•	• • •
Taiwan	23	• • •	• • •	• • •	• • •	• •	• •	• •	• •	• • •
Thailand	22	• • •	• • •	• • •	• •	•	• • •	• •	• •	• • •
Viet-Nam, Laos, & Cambodia	16	• • •	• • •	• •	• •	•	•	• •	• •	—
AFRICA										
Rhodesia & Nyasaland	22	• • •	• • •	• • •	• • •	• • •	• • •	• •	• •	—
Union of So. Africa	23	• • •	• • •	• • •	• • •	• •	• • •	• •	• •	• •

LEGEND FOR TABLE I

For purpose of evaluating market forecasts, the following guide can be used:

• • • Above 1956 levels
• • At 1956 levels
• Below 1956 levels

These apply to columns "A," "B," "D," "F," "I." In the case of column "E" (Current Dollar Situation), three dots indicates strengthening dollar situation; two dots, no change in dollar situation, one dot, weakening dollar situation. In the case of column "G" (Current Inventories), three dots means understocked inventories; two dots, adequately stocked inventories; one dot, overstocked inventories. In the case of column "H" (Wholesale Credits and Collections), three dots means good credit situation and prompt collections; two dots, fair credit situation and fair collections; one dot, poor credit situation and poor collections.

The total market factor is an arithmetical number arrived at by adding the number of dots in each of the nine columns pertaining to any one market area; the highest total possible would be 27. A market factor of 18 is the dividing line; a figure above that indicates general improvement over 1956; one below, that levels lower than 1956 results may be anticipated. It must be clearly understood that the total market factor is not a weighted factor—that is, the increasing or relative importance of the factors has not been allowed for. It is, therefore, difficult to establish a precise total market evaluation. For example, in one case the current inventories and local industrial activity might be subordinate to the current dollar situation or to exports to the United States, both of which might far outweigh all other factors whereas the reverse might be true in another country. But it is possible, by using the total market factor to get a workable index of the market position of each country and evaluate it with respect to its 1957 potentials, especially when the index is taken in conjunction with Table II—U.S. International Trade which appears on this page. The latter defines the dollar exports and imports between the United States and the particular country or countries involved. It provides a further index to the market potential of any particular country in this review. For example, Mexico with a market factor of 23 and accounting for $544 million of U.S. exports, obviously does not carry as large a potential as Canada, which has the same market factor but buys almost five times more. The correlation of items in Table I with Table II is, therefore, important in studying the individual markets for their 1957 potentials.

LEGEND ON TABLE II

The deficit percentage shown in column O is the relation of the U.S. exports for the first eight months of 1956 (column J) to the deficit balance of trade during the same period. The percentage figure (shown, of course, only where deficits occurred) indicates the degree to which the particular countries under review were unable to offset purchases in the U.S. by exports of their products to the U.S. This will prove a valuable index to watch in the future, since it reflects possible dollar exchange difficulties.

TABLE II: How Foreign Markets Fared in 1955-1956

	U. S. INTERNATIONAL TRADE (in millions of dollars)				WORLD INTERNATIONAL TRADE in 1955			
	J	K	L	M	N	O	P	Q
	U.S. Exports Jan-Aug 1956, inclusive	U.S. Imports Jan-Aug 1956, inclusive	Balance of trade with U.S. 8 mos. 1956	Balance of trade with U.S. full year 1955	World balance of trade (in $ million)	Deficit Percentage J/J	% of World imports bought in U.S.	% of world exports sold to U.S.
CANADA	2,608	1,895	− 713	− 555	− 365*	27	73	60
PUERTO RICO	331‡	227‡	− 104	− 180	− 220	31	91	97
LATIN AMERICA	2 408	2,656	+ 248	+ 272	+ 858		42	41
Argentina	134	100	− 34	− 22	− 41	25	14	13
Bolivia	31	28	− 3	+ 29	+ 18*	10	38	60
Brazil	190	504	+ 314	+ 392	+ 116		24	44
Chile	85	151	+ 66	+ 40	+ 98		43	42
Colombia	233	289	+ 56	+ 110	− 87		63	74
Costa Rica	27	11	− 16	− 15	− 8	60	60	54
Cuba	324	349	+ 25	− 30	+ 98*		71	68
Dominican Republic	43	43	0	+ 10	+ 16*		65	55
Ecuador	30	29	− 1	+ 8	0*		53	61
El Salvador	32	36	+ 4	+ 15	+ 14		57	64
Guatemala	51	46	− 5	+ 15	− 5*	10	63	74
Haiti	22	12	− 10	− 10	− 3	45	64	43
Honduras	24	22	− 2	− 11	− 2*	8	65	67
Mexico	544	282	− 262	− 303	− 261	48	79	74
Netherlands Antilles (W.I.)	43	159	+ 116	+ 159	− 27*		7	26
Nicaragua	23	17	− 6	− 13	+ 12*	26	64	38
Panama	45	15	− 30	− 55	− 54*	67	60	86
Paraguay	3	4	+ 1	+ 2	+ 6*		14	17
Peru	100	89	− 11	− 53	− 29	11	50	36
Uruguay	17	22	+ 5	− 24	− 42		20	87
Venezuela	407	448	+ 41	+ 28	+1,039*		59	30
WESTERN EUROPE	3,035	1,800	−1,235	−1,814	−5,564	41	11	7
Austria	52	29	− 23	− 59	− 188	44	10	5
Belgium & Luxembourg	265	198	− 67	− 67	− 64	25	11	9
Denmark	41	40	− 1	− 29	− 131	2	8	6
France	353	156	− 197	− 156	+ 120	56	10	4
Finland	27	32	+ 5	+ 1	+ 18		6	6
West Germany	463	311	− 152	− 228	+ 316	33	13	6
Greece	58	14	− 44	− 50	− 199	76	20	13
Iceland	7	4	− 3	− 11	− 25	43	22	12
Ireland	18	5	− 13	− 41	− 263	72	9	3
Italy	310	130	− 180	− 175	− 848	58	15	9
Netherlands	350	103	− 247	− 329	− 520	71	14	6
Norway	63	50	− 13	− 14	− 454	21	9	9
Portugal	29	16	− 13	− 9	− 114	45	10	10
Spain	155	51	− 104	− 68	− 172	67	18	10
Sweden	106	71	− 35	− 111	− 262	33	10	5
Switzerland	133	104	− 29	− 43	− 181	22	13	12
Trieste	6	—	− 6	—		100	—	—
United Kingdom	511	465	− 46	− 308	−2,413	9	10	7
Yugoslavia	88	21	− 67	− 117	− 184	76	33	11
MIDDLE EAST	399	250	− 149	− 166	+ 9	37	19	8
Egypt	84	10	− 74	− 37	− 121	95	12	7
Iran	48	27	− 21	− 19	+ 68	44	19	10
Iraq	26	25	− 1	− 30	+ 245	4	15	2
Israel	65	13	− 52	− 73	− 239	80	29	19
Kuwait	21	65	+ 44	+ 80			—	—
Lebanon	26	3	− 23	− 35	− 204	88	13	8
Saudi Arabia	52	55	+ 3	− 13	+ 444		36	10
Turkey	77	52	− 25	− 39	− 184	32	22	15
FAR EAST & OCEANIA	1,508	1,262	− 246	− 221	− 869	16	19	15
Australia	105	89	− 16	− 75	− 144*	15	12	7
British Malaya	31	149	+ 118	+ 199	+ 109		4	17
Ceylon	4	21	+ 17	+ 28	+ 86		3	9
Hong Kong	45	12	− 33	− 34	− 206	73	9	5
India	151	141	− 10	+ 34	− 89	7	14	15
Indonesia	77	125	+ 48	+ 137	+ 327		16	18
Japan	505	368	− 137	− 212	− 460	27	31	23
Korea	105	7	− 98	− 120	− 235	93	50	32
New Zealand	30	51	+ 21	− 18	+ 19*		9	6
Pakistan	98	27	− 71	− 24	+ 111	72	11	8
Philippines	206	189	− 17	− 88	− 155*	8	65	60
Taiwan	73	5	− 68	− 99	− 77	93	47	5
Thailand	33	64	+ 31	+ 55	+ 63		16	29
Viet-Nam, Laos & Cambodia	45	14	− 31	− 4	− 218	69	10	23
AFRICA	340	377	+ 37	− 116	− 746		11	9
Algeria	13	2	− 11	− 13	− 236	85	3	1
Angola	9	20	+ 11	+ 9	+ 4		14	23
Belgian Congo	41	70	+ 29	+ 4	+ 88		19	16
Brit. East Africa	5	28	+ 23	+ 21	− 115		3	11
Brit. West Africa	13	74	+ 61		− 7		11	2
Ethiopia	3	17	+ 14	+ 8	− 2		13	25
French Morocco	25	7	− 18	− 34	− 170	72	9	4
Fr. West Africa	20	28	+ 8	+ 10	− 84		4	9
Liberia	18	28	+ 10				—	—
Rhodesia & Nyasaland	9	28	+ 19	+ 44	+ 95*		5	13
Union of So. Africa	184	75	− 109	− 165	− 319*	59	21	8

NOTE: In columns M and N, + designates a favorable balance of trade of the specific countries reviewed; i.e., excess of their exports over imports. — indicates a deficit balance of trade; i.e., imports exceeding exports. Data reported in columns J and K obtained from Statistical Reports Part 3, No. 56-45, U.S. Dept. of Commerce. All export figures are f.a.s. (free alongside steamer) port of export; import figures represent foreign value at port of export, and exclude insurance, freight, etc. The 1955 World Trade figures are taken from Direction of International Trade, Series T, Vol. 7, No. 6. In arriving at Net Balance of Trade (column N) all world export figures (except Bolivia) are f.o.b.; all import figures are c.i.f. (cost, insurance and freight) except those marked * which are f.o.b. ‡=Estimated.

concerned with budgeting the several phases of marketing campaigns, and evaluating the area credit risk, the nine basic appraisals in Table I will make possible some method in selecting certain markets for emphasis.

But aside from these indices, others reported in the analysis of U.S. international trade for 1955–1956 (Table II) may also provide a more educated estimate of the dollar-volume limits of individual markets, bring calculations more in line with capacity.

Invisible Exports Can Help

The extent to which any country can afford the goods or services available in world markets is not a matter of keeping exact balance between debits and credits—between imports and exports. Many considerations provide escape from such precise accounting. Foreign investments (and loans) involving political, military, and economic inducements create immediate and protracted income for any given country. Tourism is another source of revenue. Service fees, which run the gamut from shipping charges to canal fees(!) to insurance and banking, provide to some countries a sustenance that far exceeds the more direct proceeds from the straight-line exporting of minerals or merchandise. *But, for the most part, the constant and definitive index of progress and prosperity is the favorable balance of trade.*

The No. 1 Index

When exports exceed imports the net result is, to paraphrase Micawber, happiness; and the obverse result is unhappiness. To ignore this simple but fundamental fact is to court economic headaches. Of course international trade is a multilateral activity. The exchange of imports and exports usually shows a wide disparity, country vis a vis country. For example, we import heavily from British Malaya ($149 million in eight months, 1956), sell little in return—$31 million in the comparable period. With the dollar surplus available, British Malaya can buy freely from other markets. *But because we are the world's largest exporter, the dollar pool created through our imports can be siphoned off too rapidly.* And convertibility is as yet too limited to provide adequate reserves. It is because we are so dominant in world trade that extra safeguards have to be developed. A time lag because of credit can affect the ebb and flow of dollar transfers. A high proportion of our imports is paid for at entry, while some substantial part of our exports is released against future payment on time drafts and open account. This has a delayed action on the balance of trade. Extra drains on available dollar funds are created through shipping and insurance charges on exports. These can run as high as 10 to 15 per cent of the cargo value. The same qualification applies to imports, except that the country of origin is not always the ocean carrier or insurer; hence it may not obtain the revenue.

Tourism adds dollars to the balance sheet of some foreign countries as do dividends on foreign-held U.S. securities—but these assets are in the hands of the few rather than the many countries reviewed. And there are contra balances accruing to the United States because of equivalent expenditures, in kind but not in size. Repatriation of foreign capital, interest on and amortization of loans are two other factors that could depress a country's net balance.

For U.S.—No Significant Shift

In the review of how foreign countries fared in their trade interchange with the United States (Table II) two periods are given for comparison: the results for calendar year 1955 and the cumulative position for the first eight months of 1956 (latest available on a country-to-country basis at publication time). Interestingly enough, the pattern is almost constant country by country although net balances vary.

Latin America shows up well in this study. Eleven of the 21 countries analyzed are in the black in their trade interchange with us. Only six might be considered sensitive points: Argentina, Costa Rica, Haiti, Mexico, Nicaragua, and Panama, where deficit percentages are in high proportion to the amount of goods purchased here.

The European situation on net exchange with us, dismal in 1955, shows the continuance of a heavy deficit trend in 1956. Eighteen of the nineteen countries reviewed carry a minus sign; only Finland with its modest volume of trade falls into the plus column. The European scene is studded with high-deficit factors, and only Denmark (2 per cent) and the United Kingdom (9 per cent) show manageable minus signs. But here heavy exports to other parts of the world are a mitigating circumstance. We take only 7 per cent of Europe's exports. The high volume of world shipments (more than $30 billion in 1955) has created an inflow of both soft and hard currencies and has made it possible for Europe to keep up its payments on trade bills to us. And heavy tourist expenditures, U.S. plant investments, U.S. Government loans relieve the pressure for dollars. Actually, because of its heavy trading in all other areas of the world, Europe's position must be studied *globally* to get some inkling of its buying capacity. But then this has been a traditional pattern.

The Middle East picture looks bleak with only two of eight countries on the surplus side in trade exchange with us. High dollar deficits shown in Egypt, Iran, Israel, and Lebanon may signal this area's trouble spots for exports in 1957.

The Far East and Oceania show enough red ink to suggest caution in moving goods to market in this area.

Hemispheric Ties Are Strong

The interchange of trade, reviewed in Columns P, Q of Table II, provides a guide to the degree to which the individual countries depend upon the United States as an outlet for their products, a source of their requirements. That the Western Hemisphere is comparatively a self-contained economic orbit is amply evident. Canada buys 73 per cent of its imports from the United States, sells us 60 per cent of its world exports. And throughout the Latin American region U.S. export and import levels of 50–60–70 per cent are prevalent. Eastward and westward, our pipelines of trade thin out. Here, as in the past, Europe still dominates.

Export management's need for adequate statistical controls becomes more urgent each day, as exports and imports break through to new high levels. The trend of the U.S. balance of trade should prove an important index in gaging the tempo of international trade in 1957.

—A. O. S.

Supplementary market reports appear on pages 92, 93, and 94.

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THAILAND

0083 WISH TO PURCHASE DIRECT LACTOSE AND CHEMICALS. TAR NIN CO., LTD., 174 Soi Phapirom, Bangkok.

VENEZUELA

0084 Want to purchase direct, corrugated aluminum. MADE, S.A., No. 62 Avenida Las Palmas, Boleita, Aptod. 4158, CARACAS.

0085 Will make direct purchase of phonograph records and high-fidelity apparatus for musical reproduction. COMPANIA MUSICAL MAGNUS, Edificio Arte, Plaza Chacaito, Apartado 4521, Caracas.

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0093 Agency sought from U.S. manufacturer of novelty items for automobiles; and products to be used for preparation of automobile bodies before phosphatization. ALFREDO BISIO, 7 Corso re Umberto, Turin.

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MEXICO

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NEW ZEALAND

0102 Wish to act as exclusive agency on commission basis for mild steel in all shapes, wire, wire netting, galvanized iron and nonferrous metals. JOHN & STERN & CO., LTD. 120 Adelaide Road, Wellington, S.1.

0103 Wish to obtain agency for essential parts for earthmoving, heavy steel fabrication, heavy transport equipment, importing essential parts and fabricating those that can be made locally. HEATH & DEKONING LTD., P.O. Box 2612, Auckland.

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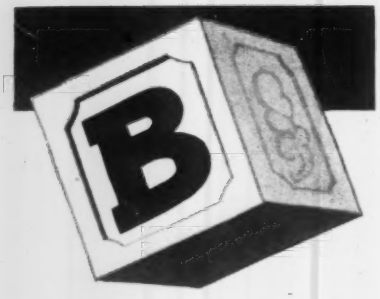

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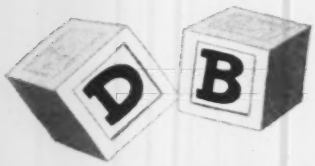

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SPECIAL REPORTS FROM OVERSEAS BRANCHES AND CORRESPONDENTS OF DUN & BRADSTREET INC.

CANADA: The Bank of Canada, a Government institution, recently ordered that Canadian chartered banks limit loans to finance companies to September 1956 levels. This directive probably will curb consumer spending ($2.302 billion in 1956—up 16%) on installment items—particularly automobiles and household appliances. A temporary production cut is expected in these lines. Apparently fear of inflation was responsible for the regulation since consumer credit was considered to be getting out of control. A recent amendment to the Small Loans Act reduced interest so drastically that lending organizations are considering eliminating small loans entirely. In 1955 licensed Canadian loan companies made 364,572 loans of less than $200.

PUERTO RICO: Net income originating from mining and manufacturing climbed from $151 million to $175 million by fiscal year-end June 30, 1956.

LATIN AMERICA

ARGENTINA: Agricultural output, which accounts for about two-thirds of Argentina's export trade, is expected to top 1956. But the exportable surplus will be small. The export of meat is again active. Industrially, operating costs are high, there is a general shortage of cash, and bank credit is restricted. Bank loan rates are currently 7½ per cent and up with private financing costs considerably higher. One healthy sign is an increase in industrial productivity, continuing a fifteen-year trend, particularly in machinery, iron and steel, textiles, and plastics. The Government is encouraging foreign capital investment to bolster up rehabilitation.

BRITISH GUIANA: Successful negotiation in September, 1956 of the Regional Rice Pact with the fast expanding British West Indian market was a spectacular achievement, virtually binding the West Indies to British Guiana. Under the new treaty, the current $13 million West Indian rice trade will increase rapidly. British Guiana is one of the largest world producers of bauxite; this accounts for almost 90 per cent of its mining revenue. Recent annual output is almost 2½ million long tons. Since its inception in June, 1954 the British Guiana Credit Corp. has made loans of over $10 million for: housing (almost $6 million, agriculture ($2 million) and industrial development (more than $1 million).

BRITISH WEST INDIES . . . BERMUDA: Economy is based on tourist trade, American Air and Naval bases, and foreign companies with headquarters in Bermuda but doing business elsewhere. The annual import of goods—mostly from the United States, England and Canada—is about $33 million . . . GRAND CAYMAN: This island is fast developing as a tourist resort . . . GRENADA: The hotel business boomed recently when 20th Century Fox Ltd. spent more than a month in Grenada filming "Island in the Sun." Publicity resulting from the picture may spark tourist trade, which could partially offset a poor cocoa crop and provide for reconstruction of roads damaged in the 1955 hurricane. This work still lags because of lack of funds . . . ST. KITTS: Sugar, the main crop, is estimated at an impressive level of 53,000 tons for 1957, if the weather holds. Imports from the United States are still curtailed by the local finance authorities, but in recent months they have been more lenient in granting licenses.

COLOMBIA: Outlook for 1957 is poor. Coffee prices may decline because of increased production. To save dollar exchange, the Government has curtailed importation of many luxury items and is sponsoring new local manufacturing. But the need for new machinery and materials is taxing the thin dollar reserves. As of June 30, Colombia had a debt backlog of $240 million, compared to $150 million as of end of 1955. Recent estimates of dollar debts run as high as $345 million. As a result, foreign banks are charging 15 per cent for financing shipments because of the risk. There is some talk of devaluation. The Currency Control office, closed since October, may not reopen until January 10th.

COSTA RICA: Downward trend in business is expected to be counterbalanced by heavy expenditures for new links to the Inter-American Highway, petroleum exploration in the southeast, agricultural development in Limon. There is also the possibility bauxite will be found.

GUATEMALA: Outlook is good. The petroleum industry is developing rapidly—investment is now at $3 million. Most of the machinery for a new road-building program was imported in 1956. Revision of Industrial Development Law, now in progress, is expected to improve foreign investment conditions.

HONDURAS: Politics will influence the course of business in the next six months.

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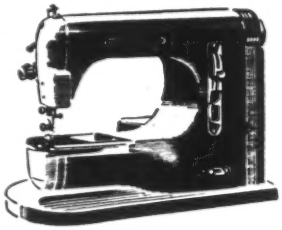

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NETHERLANDS ANTILLES: Production in Curacao and Aruba is confined almost entirely to oil refining.

NICARAGUA: Until the presidential elections in February Nicaragua will be in a state of flux. This year's crops of cotton and coffee, usually exported early in the year, will be double those of last year.

PERU: Comparatively large-scale iron and steel production is forecast, and output of the Southern Peru Copper Corp. mines is expected to show sharp gains.

PANAMA: Government is encouraging foreign investment in industry, plants, branch offices, and distribution facilities, particularly in the Colon Free Zone, where there are no price regulations.

URUGUAY: The country is going through severe inflation with a race between the cost of living and salaries. Exports and imports are regulated. There is a constant rise in the price of imported goods. Economy is based on five exportable products, and as these go, so goes the country.

EUROPE

DENMARK: A shortage in industrial fuel, as well as a general increase in prices is expected.

GERMANY: Substantially expanding exports have enabled Germany to accumulate large foreign exchange and gold reserves. Present total is $4.05 billion, with $1.3 billion in gold. Upward pressure on the deutschemark is considerable. About mid-1956, it was repeatedly rumored that the DM-dollar exchange rate would be raised from DM 4.20 to DM 3.80—that is, the DM would be increased from 23.8 to 26.3 cents. The Government has repeatedly denied this, and nothing new is heard. The remarkable production index figures bear witness to the success of the postwar industrial rehabilitation program. But because of heavy investment in capital goods, the German economy suffers markedly from lack of working capital. Indebtedness is high, collections drag, heavy taxes hinder the accumulation of reserves. Also the publicly traded concerns feel obliged to pay large dividends rather than retain earnings. This shows up favorably on the stock exchange, and attracts new share capital. But a business recession could have disastrous consequences. Efforts to control inflation and the development of the money market were the two most interesting features of German economy in 1956. The inflationary pressures produced by rising wages, substantial exports, foreign exchange control, and an extensive social program have been a matter of concern to the German Government. While there is no rationing or price control, the Government is combating high prices as part of its policy. To hold down inflation, discount rates have been raised to 5 per cent and tariff reductions arranged with some countries. But cost of living has gone up about 13 per cent in the past year. This, and the lack of capital has led to high interest rates. Also the Government is not allowing much foreign capital to come in. In 1956 a number of the largest and most important German industrials went to market for money at 8 per cent on long-term debentures. This rate is almost as high as the return on common stocks. One immediate effect of this monetary policy was that mortgage money, paying 6 per cent, is in short supply. The consequence: there was a sharp drop in the building industry despite the need for reconstruction and an acute housing shortage. This situation is expected to continue through 1957.

GREECE: The cost of living increases daily but salaries do not, and purchasing power is limited. Large exports of tobacco, olives, and olive oil to the United States will build up dollars. Germany, France and Austria are granting large credit facilities on exports. Maturity runs up to 2½ years—advance payments are as low as 10 per cent. Tourism is expanding, foreign capital investments encouraged.

NORWAY: Production capacity and export of manufactured goods is still improving, but credit restrictions cramp domestic sales. If prosperous conditions continue internationally, exports will increase.

SWITZERLAND: Events in the Near East and Hungary are having very depressing influence on the Swiss economy.

UNITED KINGDOM: The 1957 forecast is tempered by the present Middle East political situation. Last year was an unfortunate one for sterling. Improvements in the economic position made during the middle of the year were cancelled by the Egyptian problem. There is pressure on the £ sterling. It may be necessary to reshape export import quotas and exchange policies. Reducing short-term interest rates in London and cutting the cost of servicing foreign holdings of sterling balances is likely.

THE MIDDLE EAST

IRAN: Government is encouraging construction of factories to produce many consumer and capital

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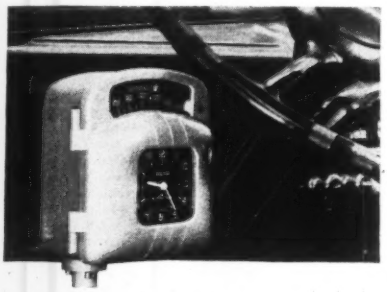

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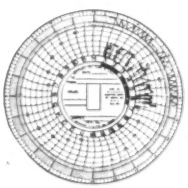

S57-5

items. High duties are imposed. Only machinery necessary to tool up a factory is exempt.

LEBANON: To serve all foreign interests better, Lebanon is trying to stay clear of political events. Beirut, the capital, is the economic pivot—95 shipping companies are represented in Beirut, and air traffic is expanding.

SAUDI ARABIA: Because of Suez, all Muslim and Arab countries lost confidence in England, and some of this feeling spilled over on the United States. Although large-scale trade relations continue, trade with Russia will increase because of the support it and other Communist countries are giving the Arab Nations; 1956 trade with Yugoslavia, Poland, Hungary and Romania expanded.

FAR EAST AND OCEANIA AND AFRICA

AFGHANISTAN: Factories erected under Government monopoly (tanneries, sugar mills, textile mills) call for heavier imports of equipment and machinery. Untapped sources of chromite, coal, copper, iron ore, oil, and silver are being explored.

AUSTRALIA: Export trade is languishing because of continuously rising costs. And because of the adverse balance of trade, imports are curtailed. This situation boomerangs on purchases of Australian-made products by countries abroad. Finance companies, traders and others are offering up to 8 per cent for fresh capital. With less ready money, large companies are finding it increasingly difficult to handle available business. Exports of wool continue to hold up well at advanced prices.

CEYLON: Complete nationalization of trade, transportation, and industry is planned, but foreign capital of any nature is welcome, provided 51 per cent of the shares are Ceylonese-owned.

INDIA: There is remarkable good-will for the United States as a result of the trouble in Egypt. India thinks the firm attitude taken by the United States avoided widespread war. The glamour of doing business with the USSR and its satellites is a thing of the past. There are complaints of high prices and inferior-quality products. When the USSR recently offered India financial assistance of 60 million rubles, a responsible Indian newspaper published an editorial cautioning against the offer. There is no desire to do business with England or France. Industry is fairly optimistic; while established enterprises are expanding, many new small units are starting with inadequate capital. The number of registered leading factories (29 groups) is today around 6,500, producing many products.

INDONESIA: The investment climate is good for the local business man, but capital funds are thin.

KOREA: Industry, especially textile mills, is being steadily developed, but output is low. Investments in industry increased by 12 per cent over 1955-56, with the Government as chief investor. Korea is still insolvent and dependent on the United States.

BRITISH MALAYA: Labuan in North Borneo may become a free port. Even providing limited facilities, this would influence commerce in this area favorably.

PHILIPPINE IS.: Early in November the Central Bank relaxed foreign exchange restrictions and now grants more allocations to individuals and manufacturing firms in need of machinery. Decrease in imports from the United States and other countries may be expected because reparation payments by Japan start this year.

TAIWAN: Industry, engaged in processing of foodstuffs, agricultural products, iron and steel, shipping, indicates 1956 volume is entirely taken up locally. Industrial estimates for 1957 are up 8-10 per cent.

THAILAND: Industrial activity is ardently promoted by the Government.

VIETNAM-CAMBODIA-LAOS: There is a lack of adequate capital for financing import and export business. A number of Chinese traders, principally from Saigon, Thailand, and Singapore, established themselves in Laos and Cambodia during 1956. Steady business is still being conducted through Vietnam.

UNION OF SOUTH AFRICA: The mining industry continues to show a favorable expansion; mineral production for the first half of 1956 amounted to nearly £134.9, up 11 per cent. Uranium sales are excluded from these figures. Gold production rose by £8 million, coal sales by £2.1 million. The total value of diamonds sold during the third quarter of 1956 was nearly £18.8 million, up more than £2 million. Building has declined sharply in recent months; plans approved for the first eight months of 1956 totalled only £43.6 million, off 26 per cent. The rapid rise in exports during the first eight months of 1956 cut the trade gap to £77.8 million, compared with £94.6 million in the previous period. There was an export decrease of nearly £2 million in wool. Industry has experienced a quieter year, accented by a more liberal policy in imports. —A. O. S.

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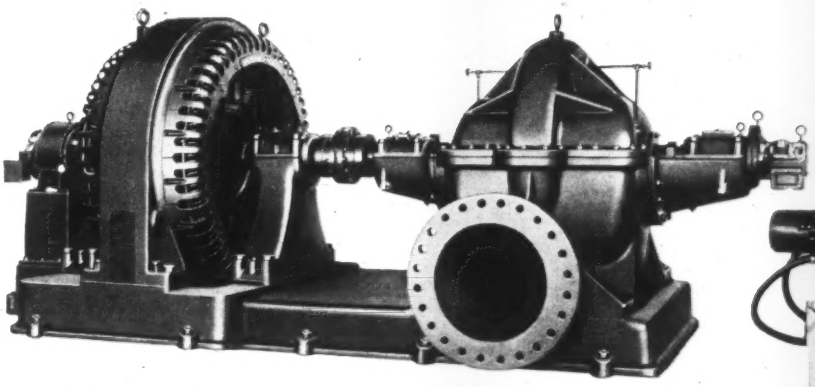
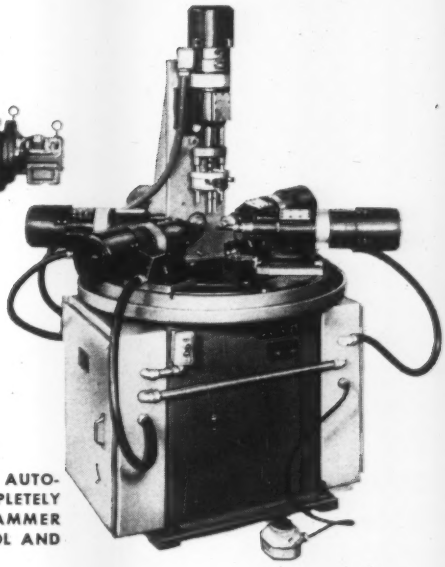


24" MOTOR DRIVEN DOUBLE SUCTION, SINGLE STAGE CENTRIFUGAL PUMP MANUFACTURED BY FAIRBANKS, MORSE & CO. MOTOR CONTROL SUPPLIED BY CUTLER-HAMMER.



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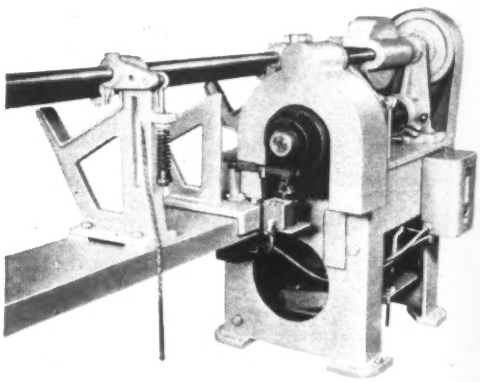

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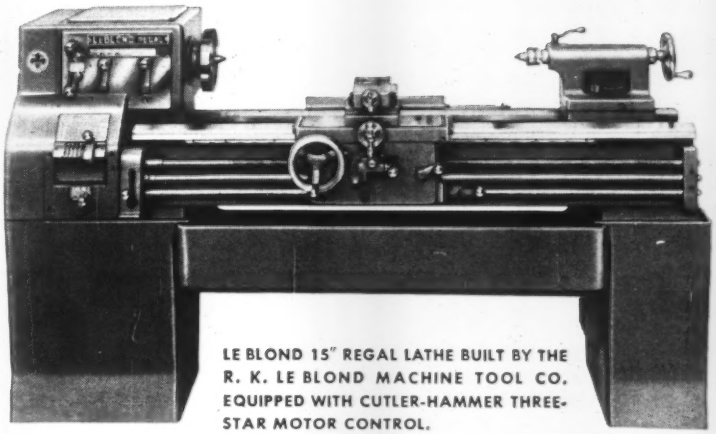

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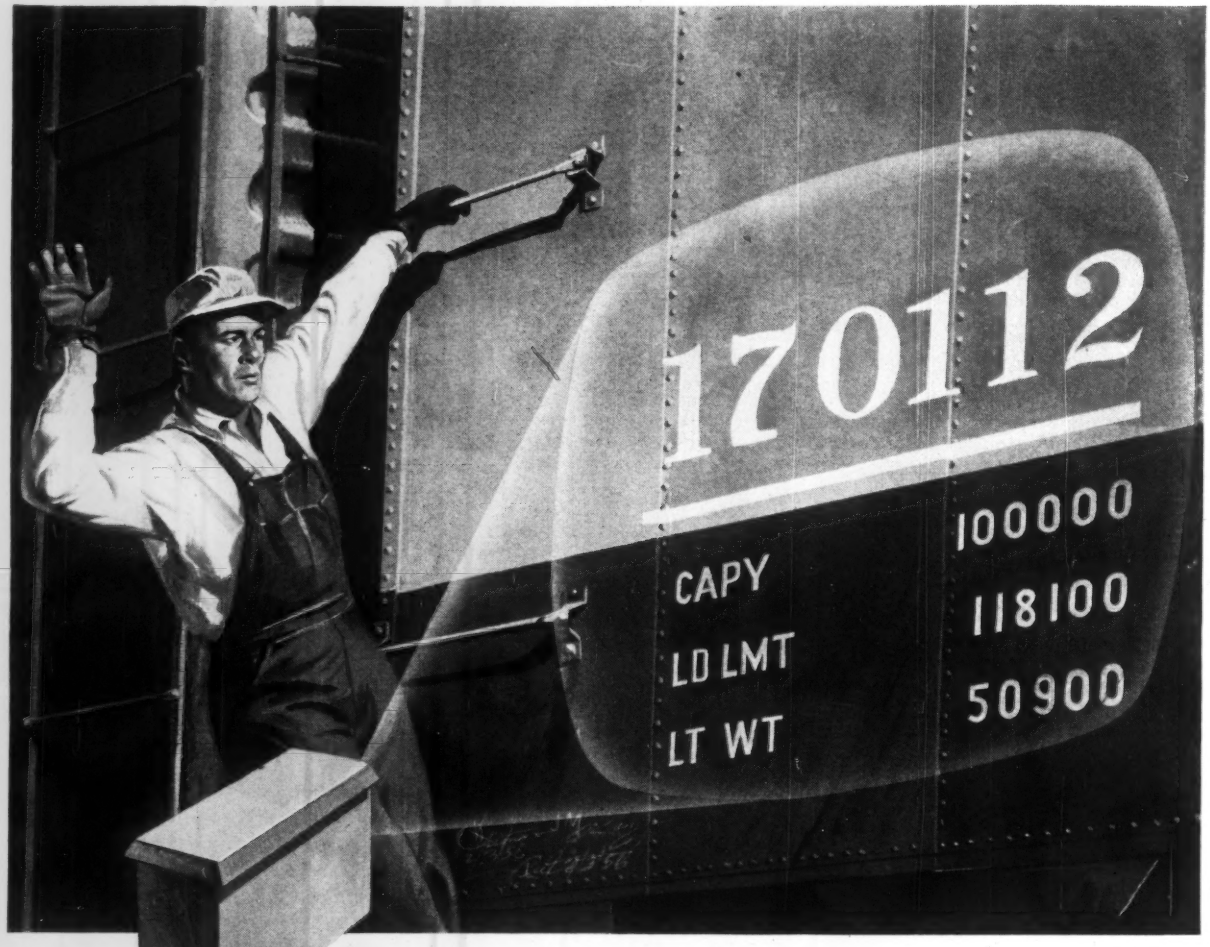

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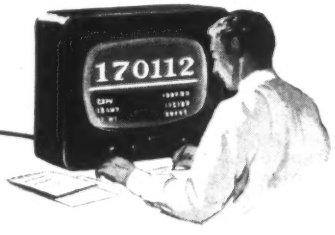

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New plant at Mattoon, Ill. centralizes Blaw-Knox road-building equipment production operations, was built to meet needs of big new highway program. Photograph shows main plant, Parts & Service Department (right) and Plant Services building (under tower).

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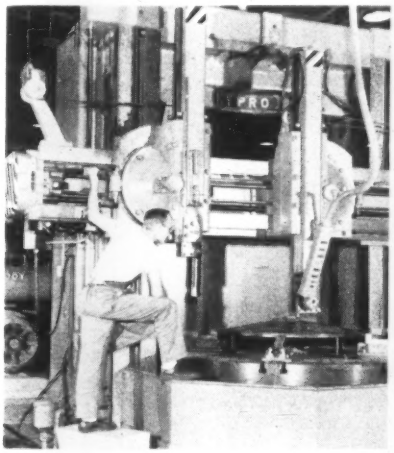
Because this is true of many markets today, the steps taken by one company in the road-building equipment field to prepare for the highway program hold valuable ideas for companies in many other industries.

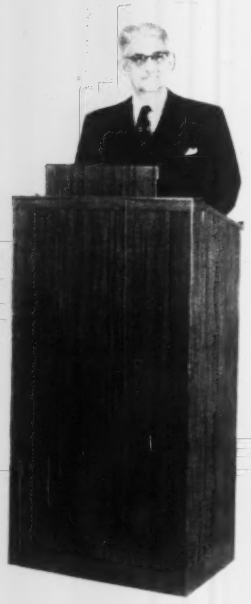
The plant pictured here was built from the ground up by Blaw-Knox Company to serve the road-building program. It brings together, at one location, operations previously scat-

Quick-change chucks on drill presses, and fast-action workholders on other machines, reduce set-up time and speed production of metal parts in new Blaw-Knox plant.



High-speed tools increase output. B-K engineers say turning speeds specified for equipment in this plant are noticeably higher than those for plant built ten years ago.

Tracer-controlled flame cutters quickly slice through thick metal sheet. This multiple set-up turns out five pieces in less time than previously was needed for one.



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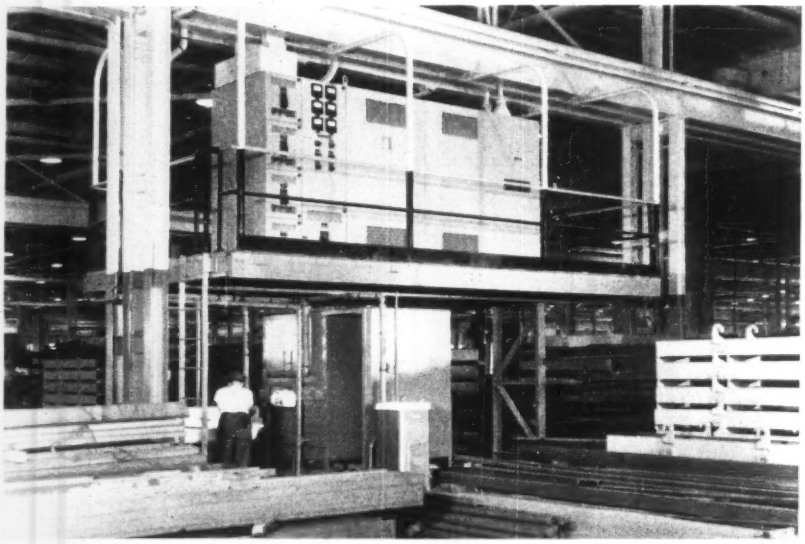
tered over three plants in as many states, and it puts into practice the lessons this company has learned through several decades of production.

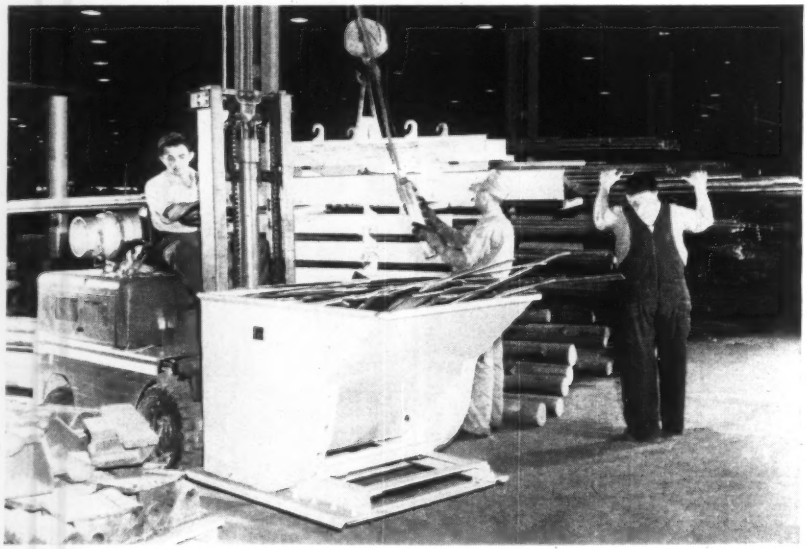
Perhaps the most important lesson B-K has learned is that a plant must be flexible—must be able to change designs and methods rapidly and without excessive costs—even if it is to make only one basic group of products. Technology is moving much too rapidly for any plant to tie itself to a single mode of operation.

To make this production unit a model of flexibility as well as efficiency, B-K chose tools that could readily be changed from one type and size of part to another, handling equipment that could cover every area of the plant, and a storage system that would provide fast service for the plant itself as well as for its customers.

For instance, in place of the metal-cutting tools ordinarily used for such jobs as machining gear cases, the new plant has grinding machines equipped with electromagnetic work-holding tables. These turn out more



Space-saving arrangement of service equipment is pictured here. Transformer station is mounted overhead, with wash stands, fountain, and other facilities clustered underneath it.



Plant housekeeping is simplified by providing self-dumping pallet boxes for collecting waste metal. Photograph also shows good practice in handling and storing raw materials.

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NUMBER II—Paint Base, Corrosion-Resistant Finishing with Iridite

WHAT IS IRIDITE®?

Briefly, Iridite is the tradename for a specialized line of chromate conversion finishes. They are generally applied by dip, some by brush or spray, at or near room temperature, with automatic equipment or manual finishing facilities. During application, a chemical reaction occurs that produces a thin (.00002" max.) gel-like, complex chromate film of a non-porous nature on the surface of the metal. This film is an integral part of the metal itself, thus cannot flake, chip or peel. No special equipment, exhaust systems or specially trained personnel are required.

Chromate conversion coatings are well known and accepted throughout industry as an economical means of providing corrosion protection, a good paint base and decorative finishes for non-ferrous metals. However, continued developments have been so rapid and widespread that many manufacturers may not be completely aware of the breadth of application of this type of finish. Hence, this digest of current information; to bring you up to date on the many ways in which you can obtain proper surface preparation for painting and increase product durability with a single multi-purpose chemical pretreatment. Report I on decorative, corrosion-resistant finishes and Report III on chemically polished, corrosion-resistant finishes are available on request.

First, it is an accepted fact that metal surfaces should be prepared before painting to make possible an efficient paint system. Naturally, this preparation should provide for good initial paint adhesion. Chemical treatments have proved extremely effective in this respect, particularly those of a neutral or preferably acid nature. Further, to be most efficient, chemical treatments should provide a non-porous barrier to maintain adhesion by sealing the metal from the paint and moisture. They should also provide a self-healing film which prevents lateral corrosion in the event that bare metal is exposed through scratching.

The Iridite chromate conversion coatings meet all these requirements. Iridite is a chemical conversion treatment for surface preparation. It provides initial paint bonding by molecular adhesion. It is acid in nature and produces a film that is gel-like and non-porous in structure. Thus, the Iridite film effectively seals the metal from the paint and from moisture penetration. Because the film contains certain relatively soluble constituents, it will protect areas scratched through to bare metal and prevent lateral corrosion. This is accomplished by a gradual leaching of these constituents into the damaged area.

Further, because of its gel-like, non-crystalline nature, the Iridite film will not affect the appearance or texture of the paint film, nor will it dust or powder to mar the painted surface. Because the film is non-porous, paint coverage is increased, thus substantial savings in paint costs will be realized. In addition, treated parts may be stored for long periods of time prior to painting without the risk of entrapped moisture causing blistering when painting.

Iridite chromate conversion coatings are widely used with equal ease and success under both baked and air-dried paint systems. While the actual adherence properties of the Iridite film do not increase appreciably with its thickness, corrosion protection does. The protection of the Iridite film is proportionate to its thickness and should be taken into consideration when selecting the Iridite to meet your needs. However, it is sometimes necessary to sacrifice maximum corrosion protection for appearance when a finished part is to be only partially painted. For example, it may be desirable to use a thin, clear, bright Iridite film if the unpainted areas must present a chrome-like appearance. A typical case is that of instrument housings on which the exterior is painted and the inside left unpainted.

On the other hand, if all surfaces of the product are to be painted and maximum corrosion protection is required, the heavier and most protective Iridite films should be used. For example, all surfaces of zinc die cast fruit juicers are finished with a highly protective Iridite film prior to painting to provide maximum resistance to the corrosive action of fruit juices.

Iridite finishes are now available for all commercial forms of the more commonly used non-ferrous metals, including zinc, cadmium, aluminum, magnesium, silver, copper, brass and bronze. In addition to providing an excellent base for paint, the Iridite films also have high decorative value when used as final finishes in themselves.

These films can produce a wide variety of pleasing appearances including clear bright, iridescent yellow, bronze, olive drab and brown. In addition, many films can be modified by bleaching or by dyeing. Among the dye colors available are various shades of red, yellow, green, blue or black.

In planning or designing, you should consider the many other characteristics of Iridite finishes which may enter into the specific problem. In addition to their functions as protective and decorative finishes, and as bases for organic finishes and bonding compounds, Iridites have low electrical resistance. Some can be soldered and welded. The film does not affect the dimensional stability of close tolerance parts.

Iridites are widely approved under both Armed Services and industrial specifications because of performance, low cost and savings of materials and equipment.

You can see then, that with the many factors to be considered, selection of the Iridite best suited to your product requires the services of a specialist. That's why Allied maintains a staff of competent Field Engineers—to help you select the Iridite to make your installation most efficient in improving the quality of your product. You'll find your Allied Field Engineer listed under "Plating Supplies" in your classified telephone book. Or, write direct and tell us your problem. Complete literature and data, as well as sample part processing, is available. Allied Research Products, Inc., 4004-06 East Monument Street, Baltimore 5, Maryland.

wisdom comes with age

THE OLDER WE GROW, the more we know. This is not only true of people, but of companies, too . . . for a company is only as wise as the knowledge of its combined staff.

FOR 60 YEARS, PANAMA-BEAVER has matured steadily in its program to provide an "easier office-worker life." Since 1896, the company has learned to anticipate the needs of the commercial world before they arose. Among the first to recognize the important role of Vision-Engineered products, PANAMA-BEAVER's research department developed the easy-on-the-eyes Hypoint colored carbon papers plus Lustra Colorful Inked Typewriter Ribbons—especially created to harmonize with all paper stocks and letterheads. Another achievement—the Eyesaver, Parma Pearl and the NEW Ebony Unimasters (for spirit duplicating) with tinted jackets to avoid glare, relax the eyes, relieve harsh contrast and permit faster work.

EXCITING THINGS have already been charted for PANAMA-BEAVER's next 60 years . . . as you will find out when you call your PANAMA-BEAVER man, "always a live wire!"

PANAMA-BEAVER Ribbons and Carbons

Coast to Coast Distribution

Since 1896—"The LINE that can't be matched."

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PREFER LETTERHEADS With CHARACTER

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MORE AND MORE FIRMS USE

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LITHOGRAPHED STATIONERY

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work in a day than the conventional machines usually do in a week.

A Swedish "nibbling machine" (the only European-built tool in the plant) snips curved outlines in thin-gage sheet in a hurry.

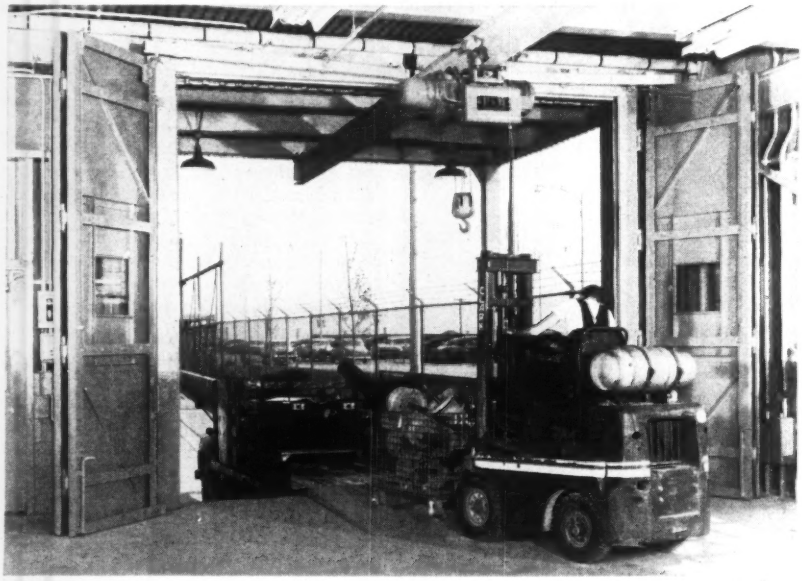
The layout of the plant is as flexible as its machines. There is plenty of space for expansion, both inside and out. But space wasn't wasted. The overhead as well as the ground level is used. Transformer substations, for instance, are built on mezzanines between building columns.

To make it easy to shift machines as production requirements change, many of the tools are mounted on vibration pads instead of being bolted to the floor.

To simplify handling, jib cranes are mounted over many of the machines. Ground-controlled cranes and hoists are provided in several areas and a good-sized fleet of fork trucks stands ready to cover the entire plant.

It's an outstanding manufacturing unit all right. But the goal it's seeking—the highway market—is an out-

Efficient parts storage is the key to good service—to production departments as well as to customers. Here, gears are held in accessible, well-labeled racks for future assembly.



Replacement parts are kept in separate warehouse building, equipped with fan-fold doors, hydraulic leveling docks, extendable craneway. Wire baskets collapse for return trip.

standing one, too. Because it holds so many opportunities for so many industries, it's worth taking a few moments to review its major features.

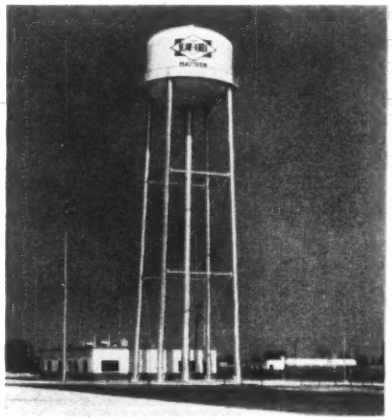
Basis for current plans is Public Law 627 (84th Congress), authorizing appropriation of funds to aid the states in construction of primary highway systems, feeder roads, and urban throughways.

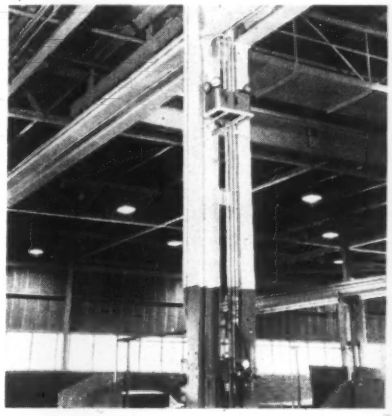
Under this law, $850 million has been allotted for fiscal 1958 and $875 million for fiscal 1959. These sums are in addition to $1,125 million previously authorized for fiscal 1957 (see April 1956, page 39), much of which is still to be spent. Since the federal funds are to be supplemented by state money, the total that can be made available for spending this year is nearly $3 billion. This is over and above the normal state and local expenditures, generally estimated at $3 or $4 billion a year. That adds up to the staggering total of $6 billion for the next twelve months, with more to come in the years ahead.

Naturally, all this money won't be spent on manufactured equipment. Thousands of tons of steel, millions of barrels of cement, and vast quantities of explosives, petroleum products, paints, and chemicals will be purchased. A good deal of the money will go for land and labor. But even these expenditures mean new markets for many manufacturers. Workers need work clothing, safety equipment, transportation. Land purchases mean paperwork—office machines, forms, and furniture.

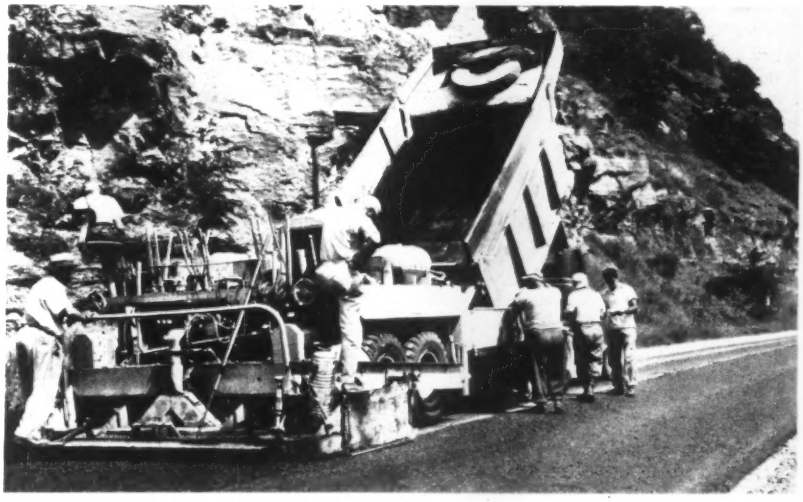
It's a tremendous opportunity. Is your company ready to get its share?

—A. R. G.

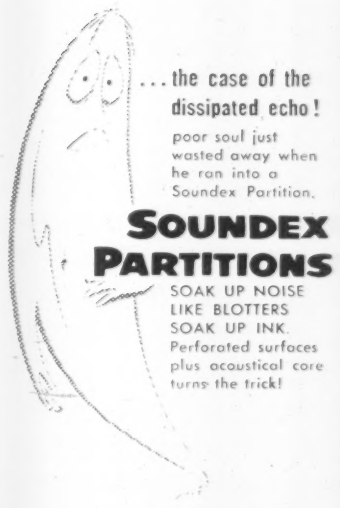




To assure continuous production, B-K has 30,000-gallon propane gas storage tank farm (above). Inside plant battery-operated lights are ready to take over if main power fails.



Finished product—first off the production line—is *PF90 Paver-Finisher.* Other units to be made at the new plant include paver "packages," concrete mixers, and road wideners.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poor soul just wasted away when he ran into a Soundex Partition.
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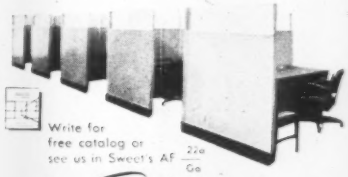

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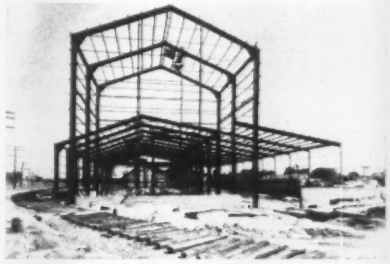

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LONG BEACH, CALIFORNIA

manufacturers produce only the finest possible quality. Others have learned how to become volume producers of lower-priced merchandise.

Some products are important because of their effect on other products a company sells. Others may be adversely affecting the reputation of the entire line. Every penny a company spends on a product unable to carry its full share of volume, leadership, and growth is properly suspect.

Examining the Potential

The basic ingredients of product success can be boiled down to a number of key questions:

Can we make it? What this really means is: Can the product be made with existing facilities? In the case of present products, the answer depends on competitive plants and methods. Unless a company can match or beat competition in quality and costs, it may have to answer this question with a qualified "yes" or an outright "no." Avco Manufacturing Company made headlines recently by deciding to dispose of its Crosley and Bendix appliance lines.

Also, in the "can we make" category is the corollary: *Can we bring something to the party?* This was answered by one company: "We are a smaller manufacturer. Experience has taught us that we do better when we specialize. Unless the product lends itself to our kind of company we might be better off without it."

Is it a growth market? Is the market potential large enough to warrant an all-out effort?

1. What are the characteristics of the product?
2. What are the market groups, and the trends underlying buying decisions?
3. What are the trends and factors influencing demand?
4. Where is the market, and what is the trend in market location?
5. How is the product distributed? What functions are performed by each group in the distribution channel, and what is the trend in distribution methods?
6. What is the total size of the market, and is the trend up or down?
7. What is the competitive climate of the market?
8. What price systems are used, and what is the price climate?

HOW ONE PRODUCTS POLICY COMMITTEE WORKS

Since 1947, the Rockwell Manufacturing Company has had a formal ten-man products committee to determine what products may be practically and profitably added to the company's diversified lines. Chairman of the committee is W. F. Rockwell, Jr. Other members include representatives from every segment of management—executive, engineering and research, production, sales and distribution, market research, and accounting.

In the chairman's words, the function of the committee is "to maintain a constant vigil over our present products and to go over proposed new products with a fine-tooth comb—from a standpoint not only of market potential and probable engineering and production costs but also of adaptability to our distribution set-up, our special knowledge and skills, our physical facilities, and our corporate financial structure."

The committee has held more than 50 scheduled meetings since it was organized. Every new or improved product must receive unanimous approval from this management "jury" before it is added to the line. The products committee initiates technical experimentation, the building of working models, field testing, and marketing studies.

The test model of a new or improved product is finally reviewed against a checklist that includes the following: number of units sold per year, actual material cost, actual direct labor cost, actual manufacturing overhead cost, total manufacturing cost, general administrative and sales expense, total cost to make and sell, average net billing price, profit amount, and percentage of profit.

The committee's verdict is presented to management for final product policy decision.

---

9. What segment of the market do we want to sell?

10. How much of the product do we sell now, in units and dollars, and what is our ten-year potential?

Can we sell it? How does it fit in with the present pattern of distribution, the skills of our salesmen, and the areas of company influence among potential customers?

A large food products manufacturer ventured into (and out of) the electrical appliance business, finding that it could not harmoniously coexist with the company's principal business and was, in fact, a profit-taker rather than a profit-maker.

Can we finance it? This goes be-

(Advertisement)

How to increase productivity of your labor force

Tested plan provides positive guide for management action

Every executive knows that there exists within his own organization a vast untapped source of increased profits — a source that holds more cost-cutting potential than automation or systems engineering. It is the human *will to work*.

Few will argue that today's worker *cannot* be more productive. He is physically and mentally superior to his grandfather, and yet when the differences in their tools and equipment are allowed for — he produces less. The difference between what he *can* produce and what he *does* produce, more often than not, determines the competitive position of his company in the market.

But it is wrong as well as useless to blame the worker. He is willing, (even anxious) that the potential be realized — but the responsibility belongs to management.

The mining of this vast reserve of profitable productivity is the business of the Sheldon-Claire Company. Since 1917 this company has served industry on an international scale thru 47 field offices in the United States, Canada, England and France. By giving management the tools to work with, together with a positive guide for their use, Sheldon-Claire has obtained demonstrable results in thousands of businesses.

Does Sheldon-Claire fit YOUR picture?

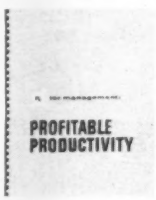
Any business that employs people — service companies as well as manufacturing plants — can realize new profits by increasing wage-dollar productivity. Size is not a factor. Many Sheldon-Claire customers employ fewer than 20 people, more employ fewer than 100, yet many of the largest corporations in the country, such as DuPont and General Electric, use Sheldon-Claire services.

Does the plan really work?

The best answer to this question is provided in the fact that 73% of Sheldon-Claire's annual sales volume is *repeat* business. A service may be bought originally on promises, but it is *reordered only when it fulfills those promises.*

How much does it cost?

Less than the price of one cup of coffee per week per employee! The program ceases to *cost* and starts to *earn* when it increases the productivity of the average worker by less than one tenth of one percent.



New Manual outlines plan... is available to men of management

This book will give you the complete story of the Sheldon-Claire plan, setting forth clearly — exactly what it is, how it works and what it will do for you. You will recognize immediately that it is the kind of sharp-edged tool that you have needed. Nothing is left to speculation — it's all here in black and white — all the information you need to make a decision.

Just ask your secretary to attach this coupon to your letterhead and we will be pleased to send you this informative book — naturally you incur *no obligation* by so doing.

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Please send me without cost your Management Manual "Profitable Productivity"

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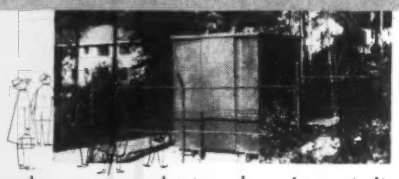
CORROSION PROTECTION PLUS GOOD LOOKS



In this "age of color", managements are sensitive to the need for paint that is both anti-corrosive and decorative. Paint should not only preserve plant and equipment, it should also preserve the good will of neighbors and the enthusiasm of personnel.

Subox* and Subalox* paints do all this. They are the only paints in America made with Suboxide of Lead, therefore they provide excellent corrosion protection. And they are made in a wide range of metallic colors, and are effective indoors as well as outside.

Subox paints offer a complete paint system. Often the same variety functions as both primer and finishing coat and may even answer the need for reflectivity as well as radiation.

Send for color cards and data book "Subox Paints".

*Trade Mark

Subox Inc.

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See Catalogues in Sweet's Industrial and Engineering Files

Self-Dumping Hoppers cut costs and save manpower

Here's how Chas. Pfizer & Co., pharmaceutical manufacturer, modernized handling of soybean meal at their Groton, Conn. plant. The meal used to be dumped manually from bags into batch make-up tanks. Now it drops from a storage container directly into a Roura Self-Dumping Hopper of special design with a narrow pouring lip. A standard lift truck picks up the full Hopper and takes it to the make-up tank. With a flip of the latch the Hopper automatically dumps its load, rights itself, locks itself, saving several man-hours per day.

This is just one of the ways Roura Self-Dumping Hoppers are cutting time and costs in handling hot or cold, wet or dry bulk materials.

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vond plant and equipment. It may be a product that would require huge investments in research, advertising, accounts receivable, or give rise to other drains on finances beyond the company's capacity.

Financing of a new product or product line, striving for leadership, frequently involves budgeting at a loss for a planned-for period. Unless a company is willing and able to do this, it may find that even a good product is doomed before it gets under way, and an attractive growth potential may never be realized.

A New England appliance and housewares manufacturer disposed of tools, dies, patents, and designs for its line of major electrical appliances after analysis of the financing required. Even though it was a well-financed company with a successful record of accomplishment extending back almost 100 years, it wisely concluded that the major appliance business is a blue-chip undertaking and that no one should sit in on the game without being able to play for big stakes. In the case of this particular company, capital and space were re-employed to enlarge and modernize electrical housewares manufacturing facilities. An unpalatable loss was changed to a comfortable profit, which the company attributes directly to this policy decision.

Can we develop worthwhile volume? The product policy section of the *Westinghouse Planning Guide* begins with the following statement: "Product profitability is hinged to a strong market position and an adequate volume base." One of the principal causes of lack of profit is low volume. The low-volume lines are usually troublesome. They require disproportionate effort and cannot carry their share of the load of research, development, and basic promotion. So unless a company can see a satisfactory volume, now or in the immediate future, the product may be one that takes rather than makes a profit.

Can we become an industry leader? Is it a product area in which the company can achieve leadership? If not, the red light is showing. If you are not a leader or can't become one, the other fellow is calling the shots. A pretty good rule of thumb is to establish the minimum share of the market needed to put your product in the profit-maker category. The emphasis is on "minimum."

How will it affect other products? If everything a company makes is of the highest quality and in a high-price bracket, a "cheap" line may be bad in many ways. Or it may be just what is needed.

A large manufacturer of office machines found that there was a middle-price market, then untouched by the company's other product lines. Thorough research showed that a product for this market could "best be distributed through certain of our existing channels." It required relatively little capital and fitted in well with existing manufacturing capacity. All these factors contributed to the company's decision to make the product. According to all reports, it is doing quite well.

On the other side of the balance sheet is the story of a very large manufacturer who developed and readied for production a product to be sold to and through an industry that competed directly with its principal business. It belatedly discovered that it would undoubtedly lose millions of dollars in business produced by its other divisions, plus irreplaceable prestige. Needless to say, a hasty retreat was ordered and the loss charged to experience.

How will it affect our reputation? Unless the product is enhancing reputation and favorably affecting the sale of other products, it will not contribute to the long-range profit picture.

Will our name help sell it? The longer a company has been in business, the stronger name and product association becomes. A company is known by the products it makes, and products are known by their manufacturers. Unless the name association is a favorable one, the product should be seriously questioned. This has been one of the principal headaches for manufacturers whose desire for diversity has led them into unfamiliar product fields. Some found that honored names in one industry were actually a handicap in another.

For one manufacturer of unrelated products, millions of advertising dollars had little effect on the purchasing habits of the appliance-buying public, who hesitated to stray from the familiar into the unknown. On the other hand, it was "natural" for a producer of metal mill products to expand into nonferrous production.

Can we make money on our investment? The most universal standard

Longer lasting...

Kinnear
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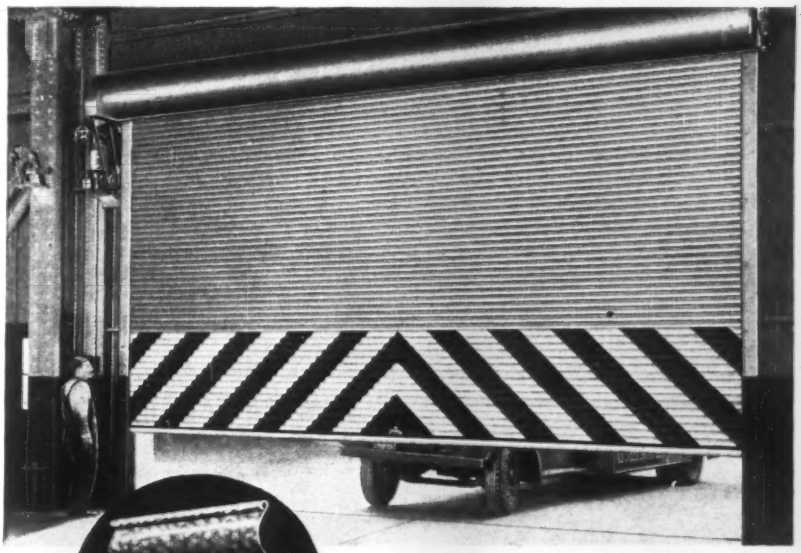

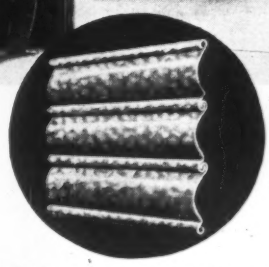

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The rugged strength of the interlocking steel slat curtain, *originated by Kinnear,* is one reason. Another is its coiling upward action — it opens out of reach of damage by wind or vehicles.

Equally important is Kinnear's thorough, heavy, high grade galvanizing. It adds a full 1.25 ounces of *pure zinc* to every square foot of metal, (ASTM standards). This galvanizing is followed by Kinnear's own *test-proved, time-proved* Paint Bond treatment, which assures quick, thorough, *lasting* coverage and adhesion of paint applied after the doors are erected.

These Kinnear "life-extension" features give you *more years* of smooth, space-saving, time-saving door efficiency—*more years* of extra all-metal protection against fire, wind, weather, vandalism and intrusion. Kinnear Rolling Doors are built to fit openings of any size, with manual or motor operation to meet any need. Write for details.

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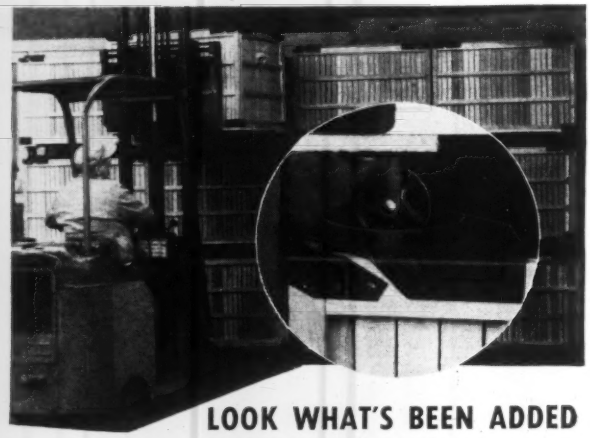
Saving Ways in Doorways



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employed by enlightened management is the return on investment the particular product will provide. The president of one of America's best-known and most successful companies wrote: "We usually consider a minimum return of 15 per cent after taxes on the active capital involved in the product line, but may vary that 15 per cent slightly upward or downward, depending upon the industry into which the product under consideration falls." Well-managed companies of the future will be those that have established profit criteria and adhere to them.

Discerning diversification means choosing products that can be sold in substantially better than break-even point volume, that can achieve leadership in a dynamic growth market, that have maximum compatibility with research, engineering, production, and marketing facilities and skills—products that lend prestige to the company's name and employ its capital to best advantage.

Discerning diversification has been our product policy at Thomas A. Edison, Inc. (which this month became Thomas A. Edison Industries, and a division of McGraw-Edison Company). It is the outgrowth of the tradition established by our founder, Thomas A. Edison, who has been characterized as "the great diversifier."

Today, we have seven product divisions, among them the well-known Edison Storage Battery and Voicewriter Divisions.

The Instrument Division produces temperature- and pressure-indicating systems and fire detection systems used on almost every type of commercial and military aircraft; now it has begun making temperature-monitoring systems for nuclear reactors.

The Primary Battery Division, whose major market in the past has been the railroads, has expanded facilities to produce Carbonaire Batteries, for electrifying both oil-burning switch lamps and marine safety beacons. The Measurements Corporation, a wholly owned subsidiary, makes precision electronic testing instruments for a market with a promising growth forecast. The Medical Gas Division makes high-purity oxygen and nitrogen, nitrous oxide, and cyclopropane for medical use. And Edison Wood Products, Inc. makes quality nursery and

juvenile furniture. Each of these divisions represents growth within our historical scope of diversification; each division realistically fills current market needs, and is an investment in long-range profit opportunity.

Looking again to the future, the professional staff in the company's Central Research Laboratory stepped up its activities in 1955 with a 30 per cent increase in personnel and the construction of a new laboratory wing, nearly half again as large as the previous laboratory. The new facilities permitted a second 30 per cent increase in the trained research staff during 1956. Another addition is now under construction.

THE AUTHOR • Robert M. Oliver has been vice president in charge of marketing for Thomas A. Edison, Inc. (which became Thomas A. Edison Industries and a division of McGraw-Edison Company this month) since July 1955. He is close to the problems of product diversification, since his company has seven major product divisions, making such varied items as primary and storage batteries, Voicewriters, and bassinets. Now only 49, he has had 30 years of previous business experience as an executive with three large electrical products manufacturers, a public utility, and an advertising agency.

Acquisition

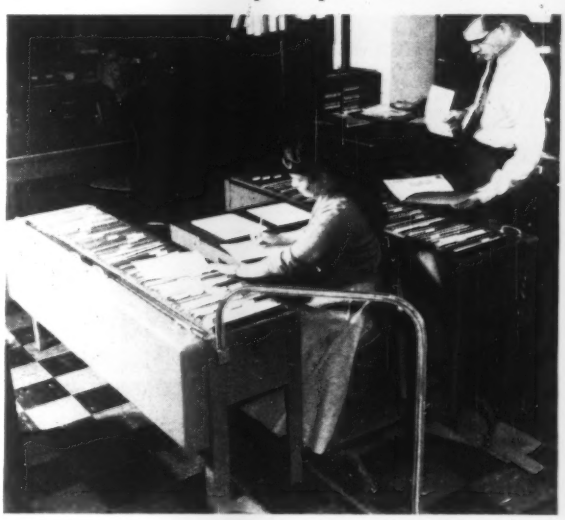
Just as important as research in the mind of every responsible company policy-maker is the closely related subject of acquisition. Both acquisition and research can lead to discerning diversification, but without discernment the end of the road can be disillusionment.

Today's growth companies are concentrating the bulk of their research dollars on products within the pre-determined scope of company interests, but permitting a smaller portion of their budgets to be invested in research that may lead them into other product fields.

Product policy is the prime consideration in acquiring other companies. For, as one prominent industrialist states it, "We take only those companies we believe fall within the scope of our product policy."

It is clear that no time is better spent by the head of the business than that required to decide what his company will make, and why.

Small Unit-Big Savings for manufacturer with ROL-DEX record handling equipment



One of two stations of Rol-Dex record handling equipment recently installed at the Wagner Electric Corp. in St. Louis. This manufacturer of electrical and automotive products uses Rol-Dex to house their open order files. Correspondence size records are kept in 9 15/16" deep x 11 3/4" wide hanging folders. The clerk rolls with the chair-desk assembly, between the two six foot units. Note that the records are readily accessible to outside reference.

ROL-DEX equipment means cost savings for active record handling operations because:

speed of operation is increased without addition of more personnel.

efficiency of operation is increased—less error—complete accessibility.

reduced fatigue and better working conditions results in fewer personnel handling greater work load with more efficiency.

ROL-DEX

WATSON MANUFACTURING CO., Inc.
Rol-Dex Division, Dept. D-2
Jamestown, New York

Please send me information about ROL-DEX and TRANS-DEX record units

Company.....
Name..... Title.....
Street..... Zone.....
City..... State.....

TRANS-DEX

WATSON (established in 1887) also builds a complete line of filing cabinets and courthouse, bank and hospital equipment.

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In Erie, Pa. it's 26 out of 29.

This is the pattern in market after market, across the country. Hand in hand with big payrolls and big industrial buying goes readership of *Dun's Review and Modern Industry*.

And among the over 110,000 subscribers, decision makers predominate. More than 79% bear the title of General Manager or higher.

Like you, they read *Dun's Review and Modern Industry* to keep up-to-date on ways to *operate* their business better.

The advertising pages of *Dun's Review and Modern Industry* are seen by management men who are accustomed to buying in volume. If you want to sell in volume to the key business and industrial concerns in the country—your advertising belongs in *Dun's Review and Modern Industry*.

YOU SELL MORE WHEN YOU SELL MANAGEMENT FIRST

DUN'S REVIEW
and Modern Industry
99 Church Street New York 8, N. Y.

VARIATIONS ON A THEME FOR 1957

HISTORY REPEATS ITSELF, but always with interesting variations. The degree in variation can be the significant difference between success and failure, or in an economic sense between prosperity and recession. For two centuries, wars have created temporary peaks in the economy followed by deep and difficult ravines. Such was our experience after the Napoleonic Wars, the Civil War, and World War I. We were promised an extended dip as the aftermath of World War II, but several unforeseen variations disturbed the patterns—first of all, the Korean War, but more importantly the tremendous increase in the consuming population and the equally amazing advances in technology. The dire warnings of economists actually helped to prove them false prophets, and they had no cause to regret the turn of events. People seldom trip over the obstacles they can see. The controls and stabilizers which were set up flattened the hills and valleys between 1946 and 1956.

Aside from external influences, the business man as an individual can ask now, "Where do we go from here?" The historic virtues of thrift, ingenuity, and plain hard work are anchored in accepted principles of successful management, but these fundamentals of yesterday's progress face minor variations of theme, which include rapid obsolescence of equipment and materials as technology suggests or competition demands. Is automation which requires the junking of usable power tools a form of waste or thrift? The question contains its own answer, for every problem must be considered on its individual merits. The differences between wisdom and folly are often seen only in retrospect.

The best talents of management are tested when it is called upon to weigh prudence against daring in the employment of equity capital, the adoption of new products, or the selection of plant and branch locations. The decisions cannot be sidestepped, for it is a rare company that has been making the same product at the same place and selling to the same market for the past ten years. The recent rash of mergers, prompted by operating necessity as well as tax opportunism, testifies to the pressures that are exerted on business judgment.

However, mergers, liquidations, failures are part of the normal wear and tear of the machinery of production and distribution. Our economy today is sound, and—although the increase in failures will invite continuous scrutiny—there is no reason to be alarmed by the present statistical trend.

Our living standards have reached a generous level at which the rich get poorer and the poor get fewer, while the middle class absorbs both and is able "to make ends meet" with a golden purse-string. American prosperity flourishes in an atmosphere of confidence. It cannot thrive on or even exist on a survival basis. It will be endangered only when the consumer decides he can "get along without things." The urge to replace, to improve, to enlarge is the spur to a dynamic economy, though the urge to save (rather than hoard) is just as essential to the well-being of the competitive and complicated scheme of our daily business life.

History should repeat itself with some interesting variations in 1957, not all of which can be anticipated at this date. The degree to which management succeeds will depend on the skill with which yesterday's experience and today's curiosity are combined for tomorrow's progress.

The Editors

How business uses the telephone to step up sales and service

FOLLOW UP INQUIRIES. A Pittsburgh iron manufacturer gives fast, personal service on inquiries from out of town. They are answered immediately—by telephone. Recently, sixteen out-of-town calls brought $3450 in orders.

INVITE CUSTOMERS TO CALL COLLECT. A Richmond, Va., parts distributor asked all his dealers to telephone their orders collect. In a very short time, business amounting to more than $2600 has been traced to out-of-town calls.

CALL CUSTOMERS BETWEEN VISITS. Salesmen for a Chicago jewelry wholesaler—one of the nation's largest—call out-of-town customers regularly between trips. Personal contact is maintained. And many sales are closed by telephone.

MAKE APPOINTMENTS IN ADVANCE. Salesmen for a Seattle electrical equipment manufacturer telephone out-of-town prospects before going to see them. This idea helps six men cover 800,000 square miles of sales territory.

Whatever you make, whatever you sell, we'd like to show you how the planned use of the telephone can save time and money in your business. Just call your Bell Telephone business office. A representative will visit you at your convenience.

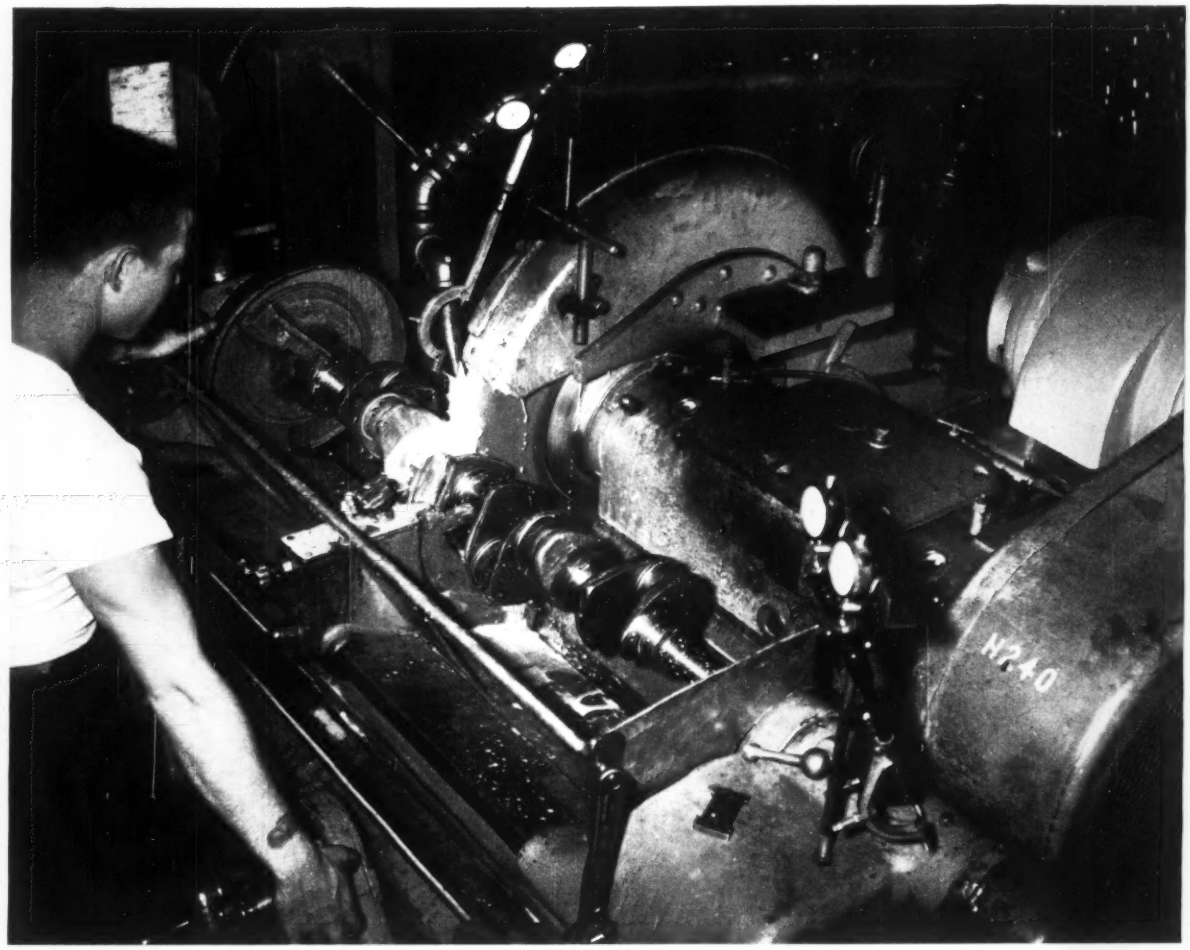
BELL TELEPHONE SYSTEM
Call by Number. It's Twice as Fast.

LONG DISTANCE RATES ARE LOW

Daytime Station-to-Station Calls

For example:	First 3 Minutes	Each Added Minute
Pittsburgh to Cleveland	60¢	15¢
Chicago to St. Louis	90¢	25¢
Richmond to Newark	95¢	25¢
Seattle to San Francisco	$1.40	40¢
New Orleans to New York	$1.90	50¢

Add 10% Federal Excise Tax



Give production a boost

Keep machined parts rustfree. You'll eliminate rejects, save extra work, reduce unit cost. A case in point.

MANY machining operations, particularly grinding, are performed with soluble oil emulsions as coolant. Unless the soluble oil contains an effective rust inhibitor, the finished parts will rust. This can harm such precision parts as ball and roller bearings, crankshafts, cylinders, etc. In any case, removal of rust means extra work and extra cost.

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Rust prevention is only one of many reasons why it pays to machine with *Texaco Cutting, Grinding and Soluble Oils*. Let a Texaco Lubrication Engineer give you the full story. Just call the nearest of the more than 2,000 Texaco Distributing Plants in the 48 States, or write:

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